

FIG. 1
(Prior Art)

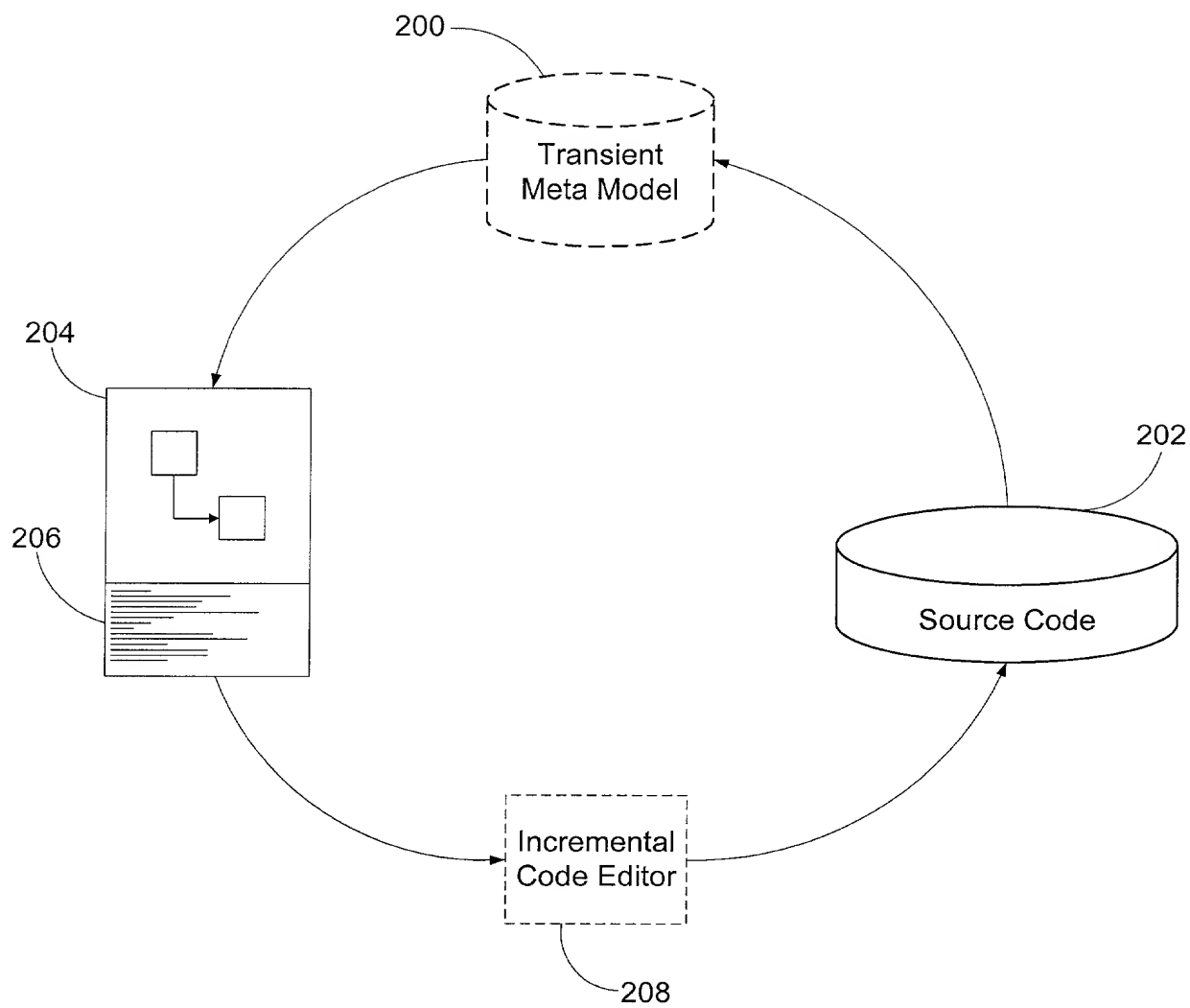
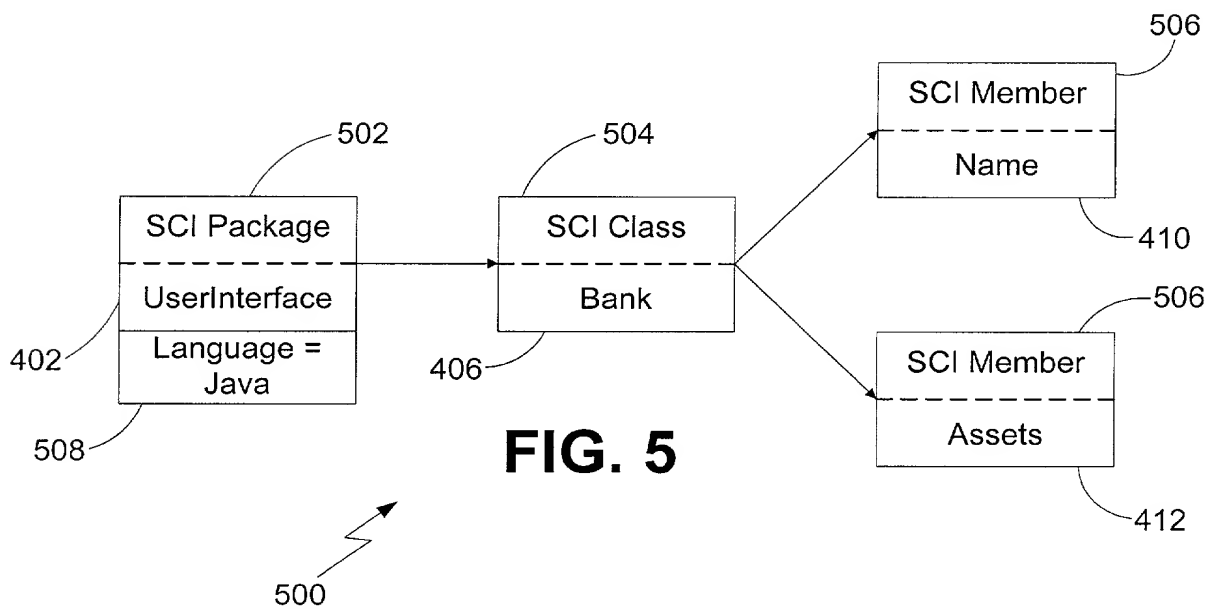
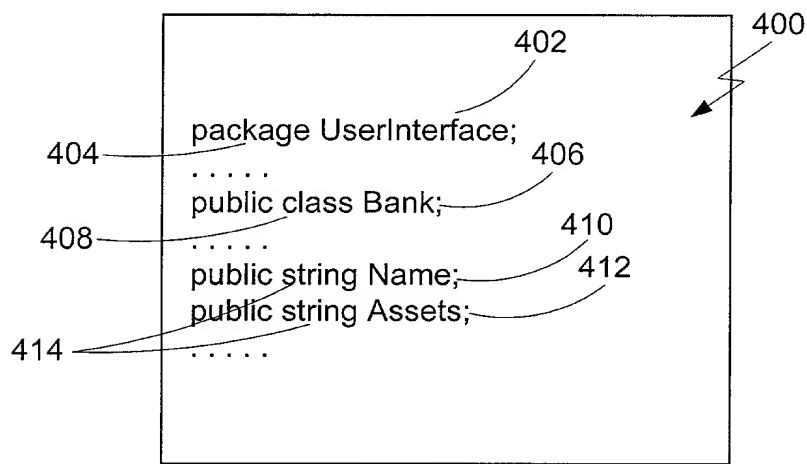
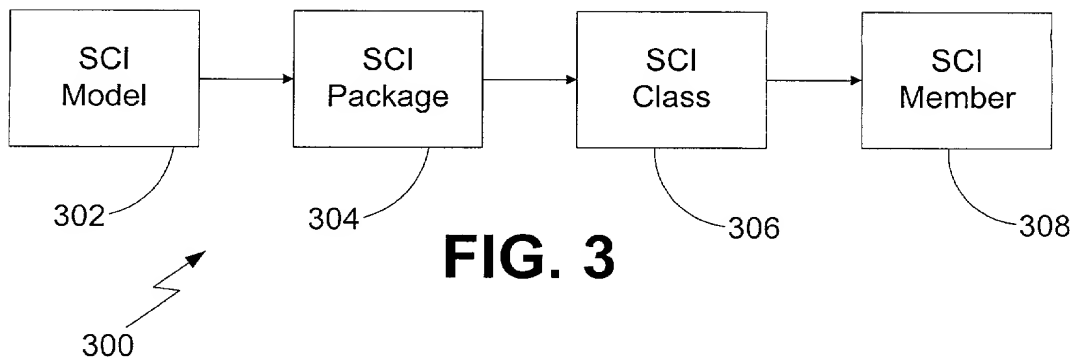


FIG. 2



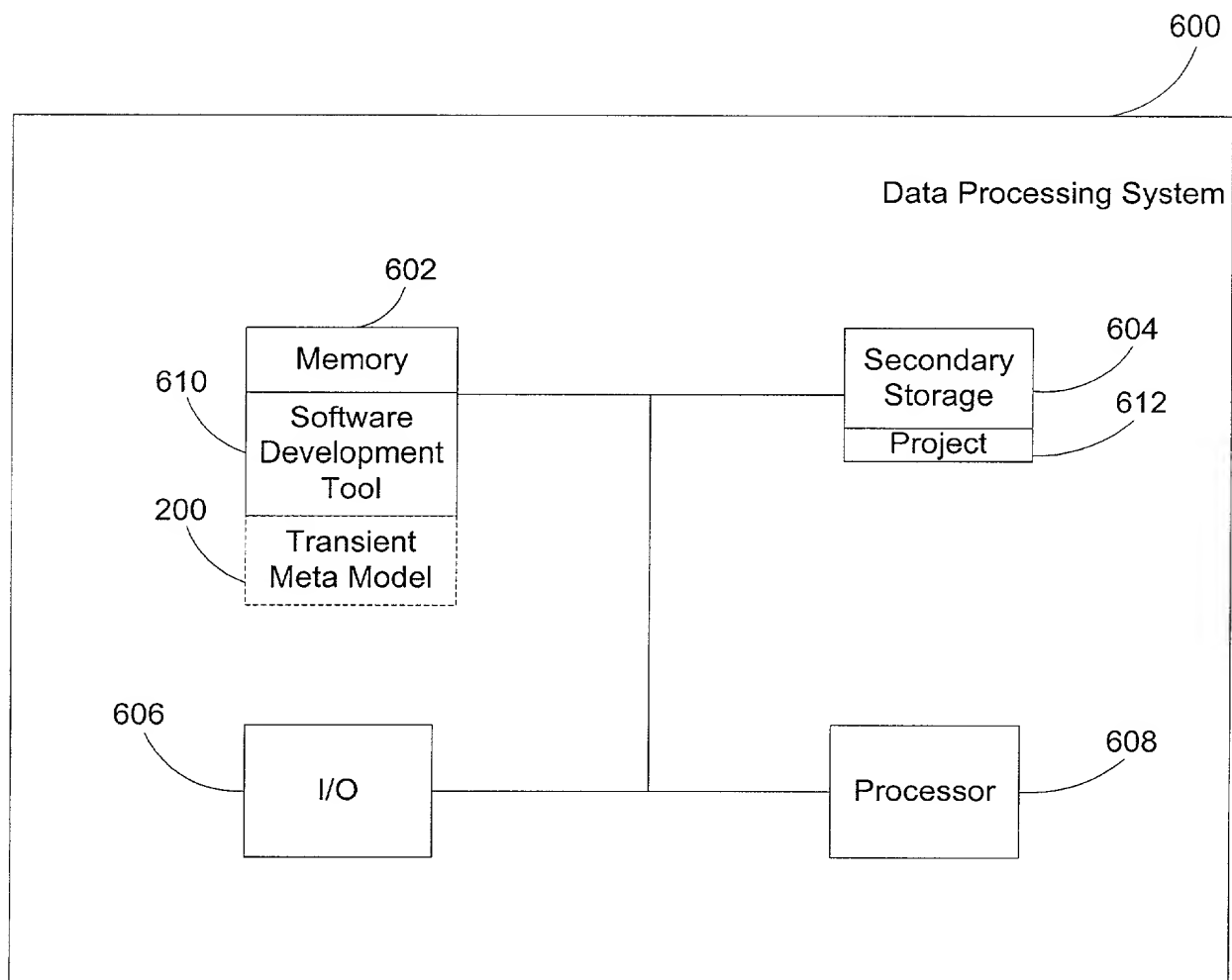


FIG. 6

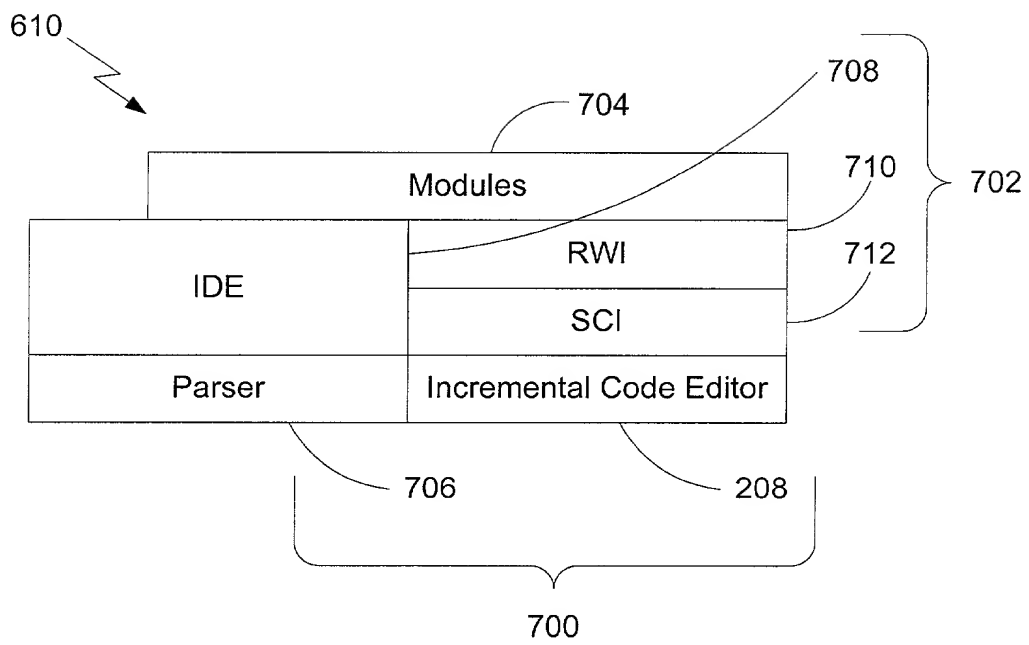


FIG. 7

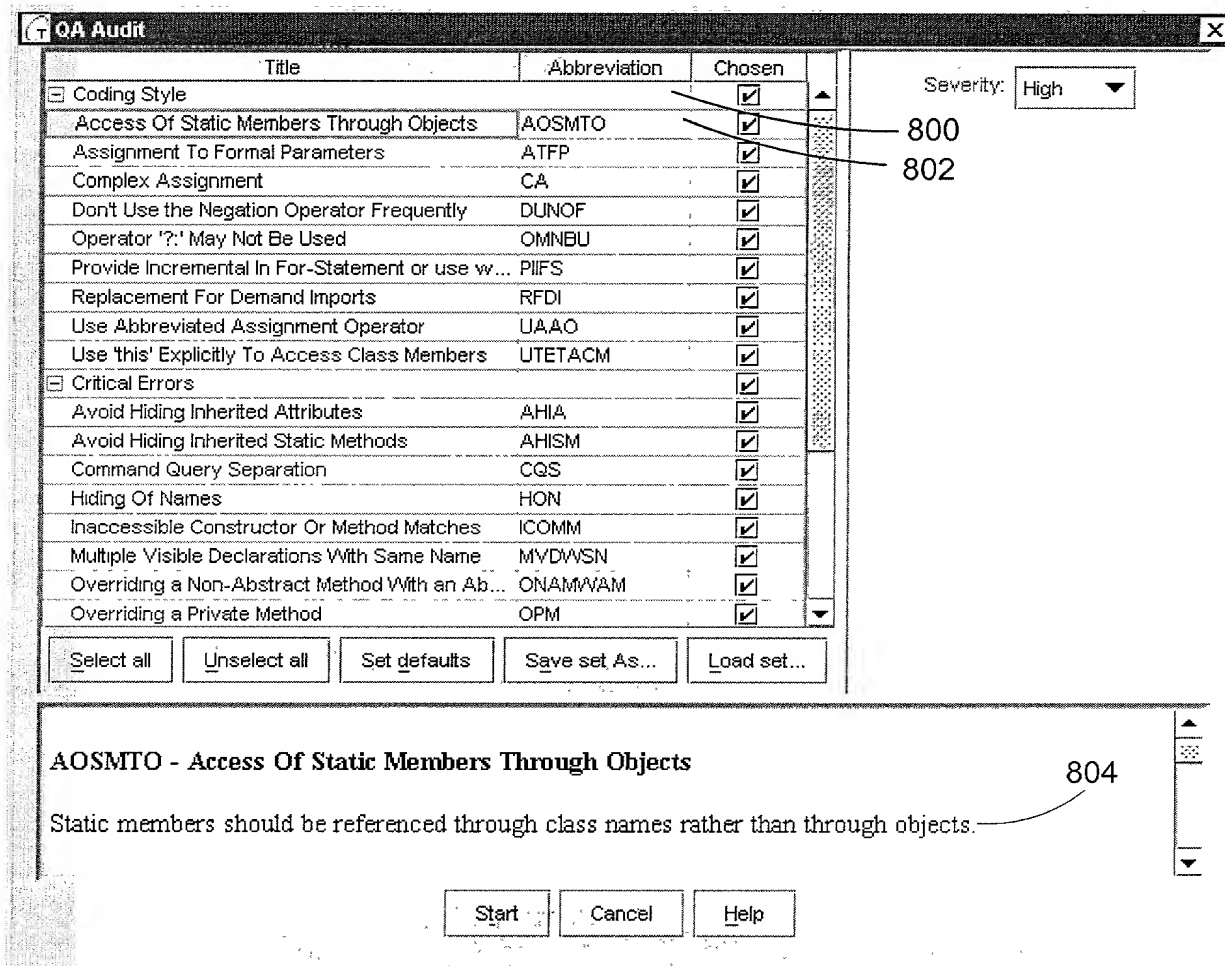


FIG. 8A

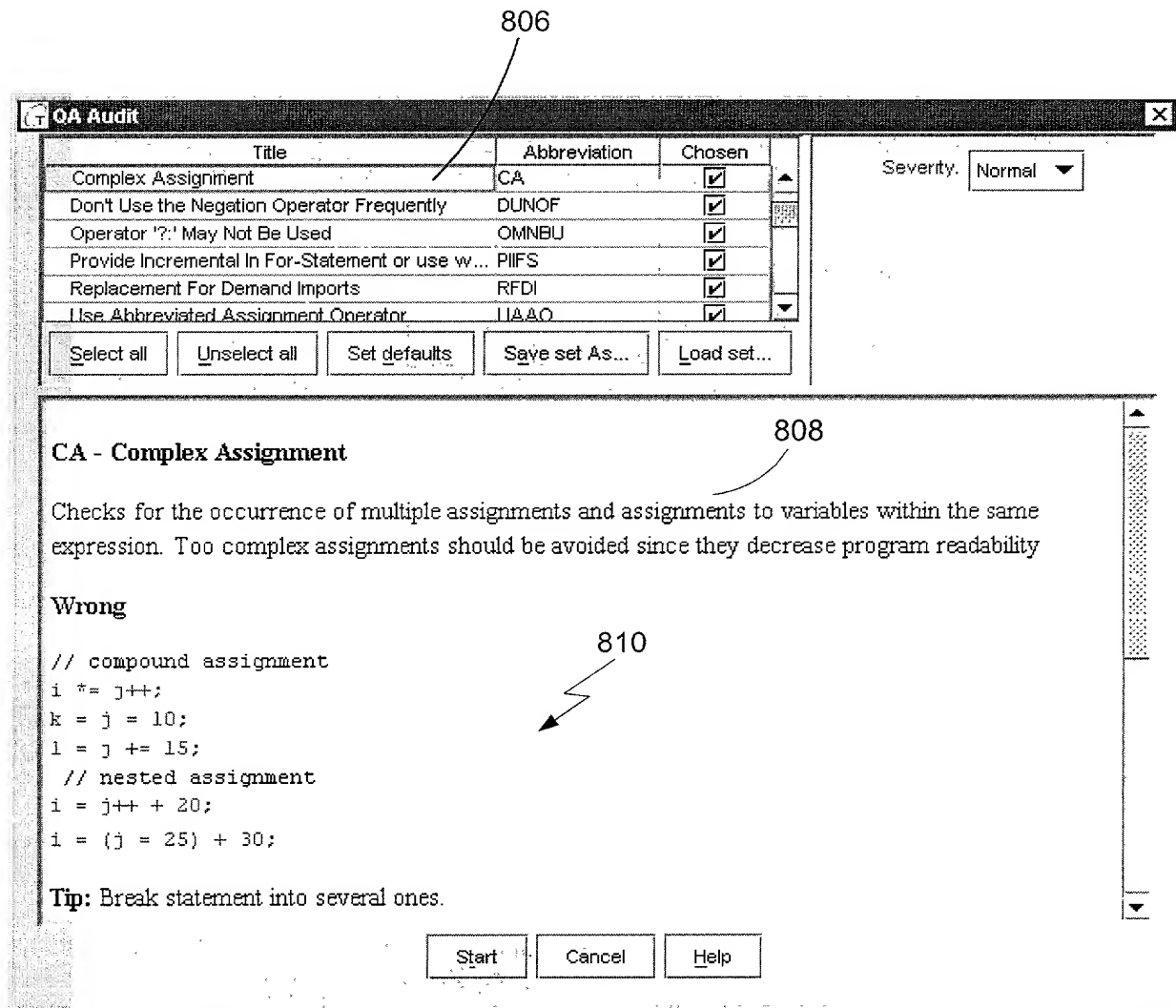


FIG. 8B

806

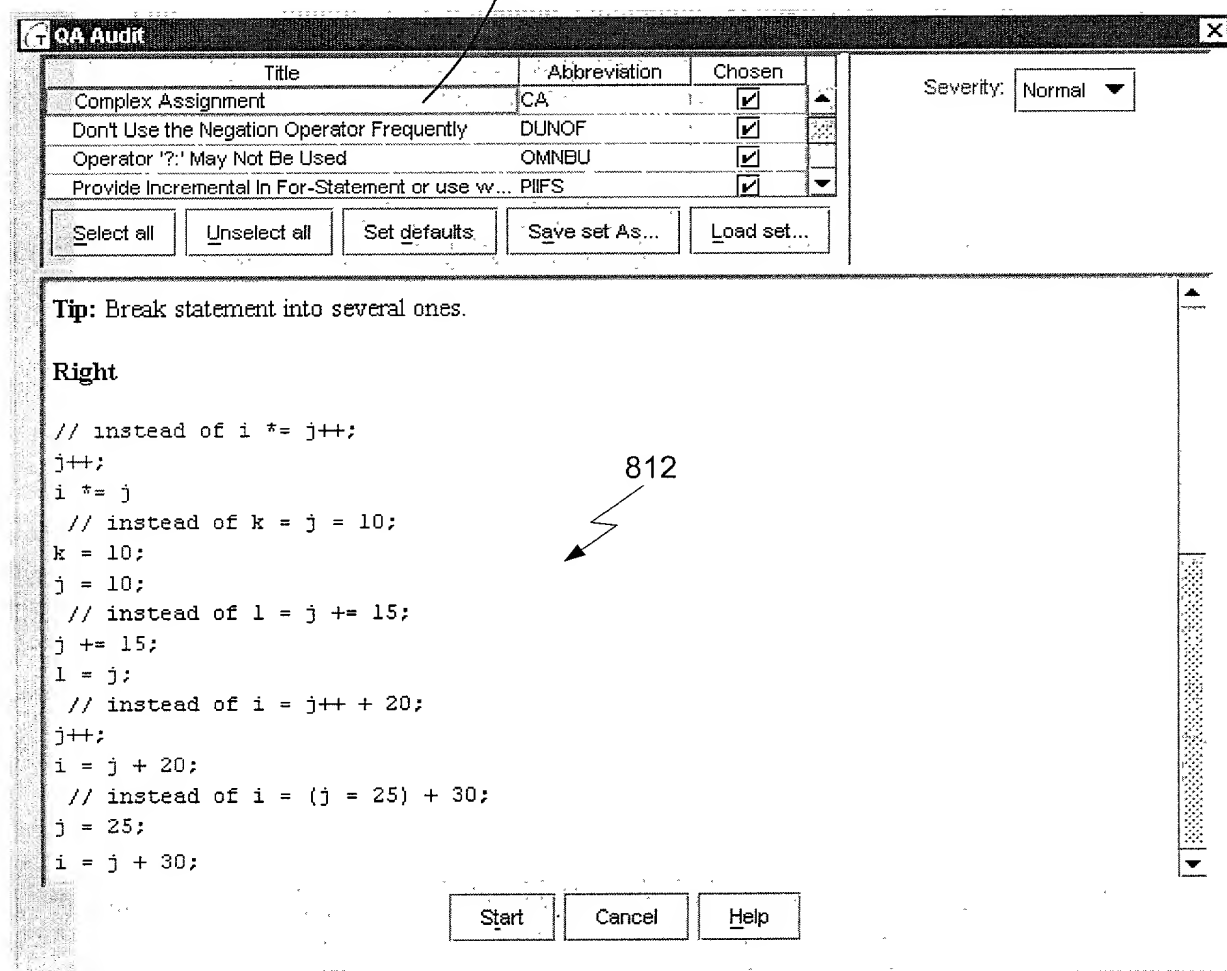


FIG. 8C

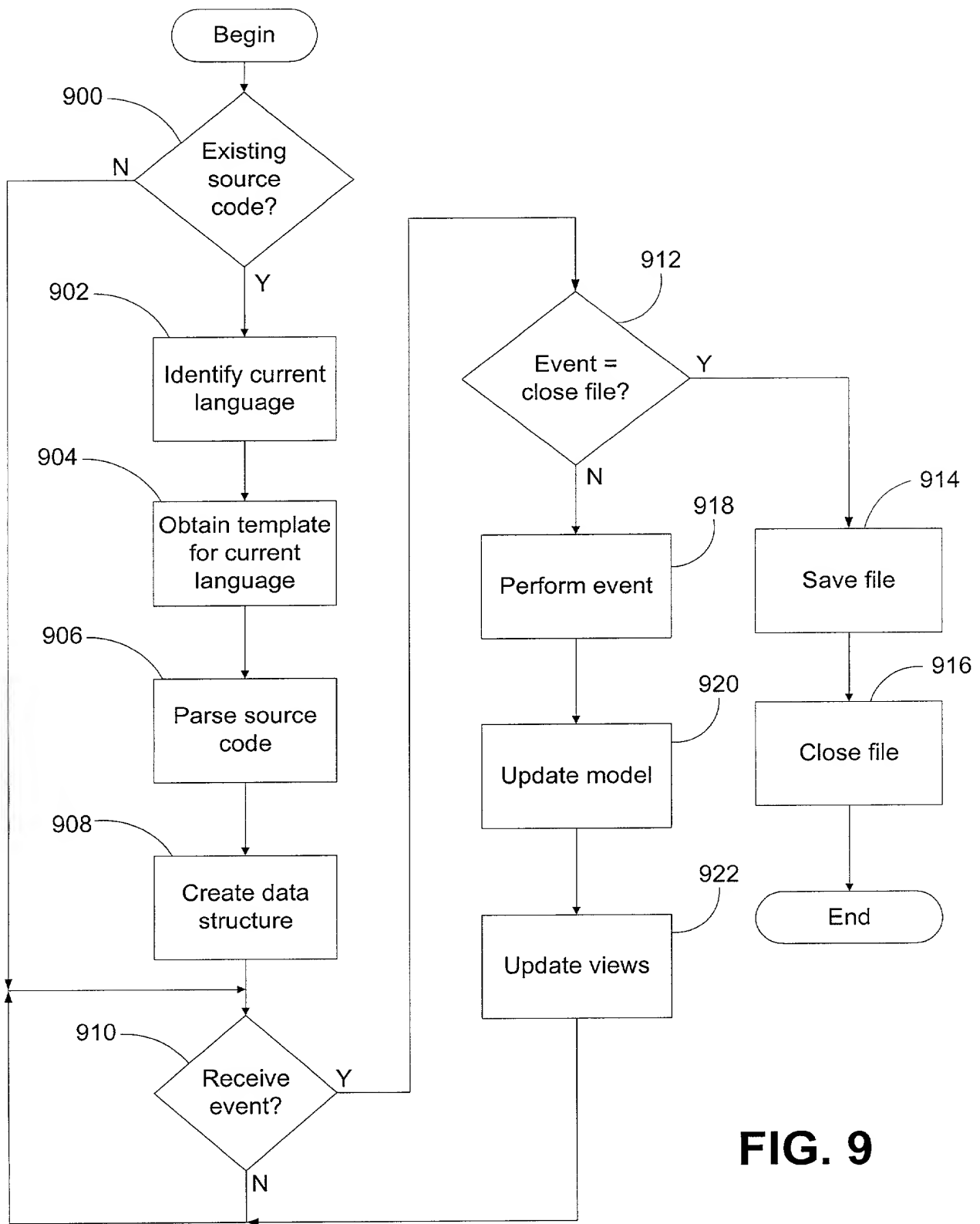


FIG. 9

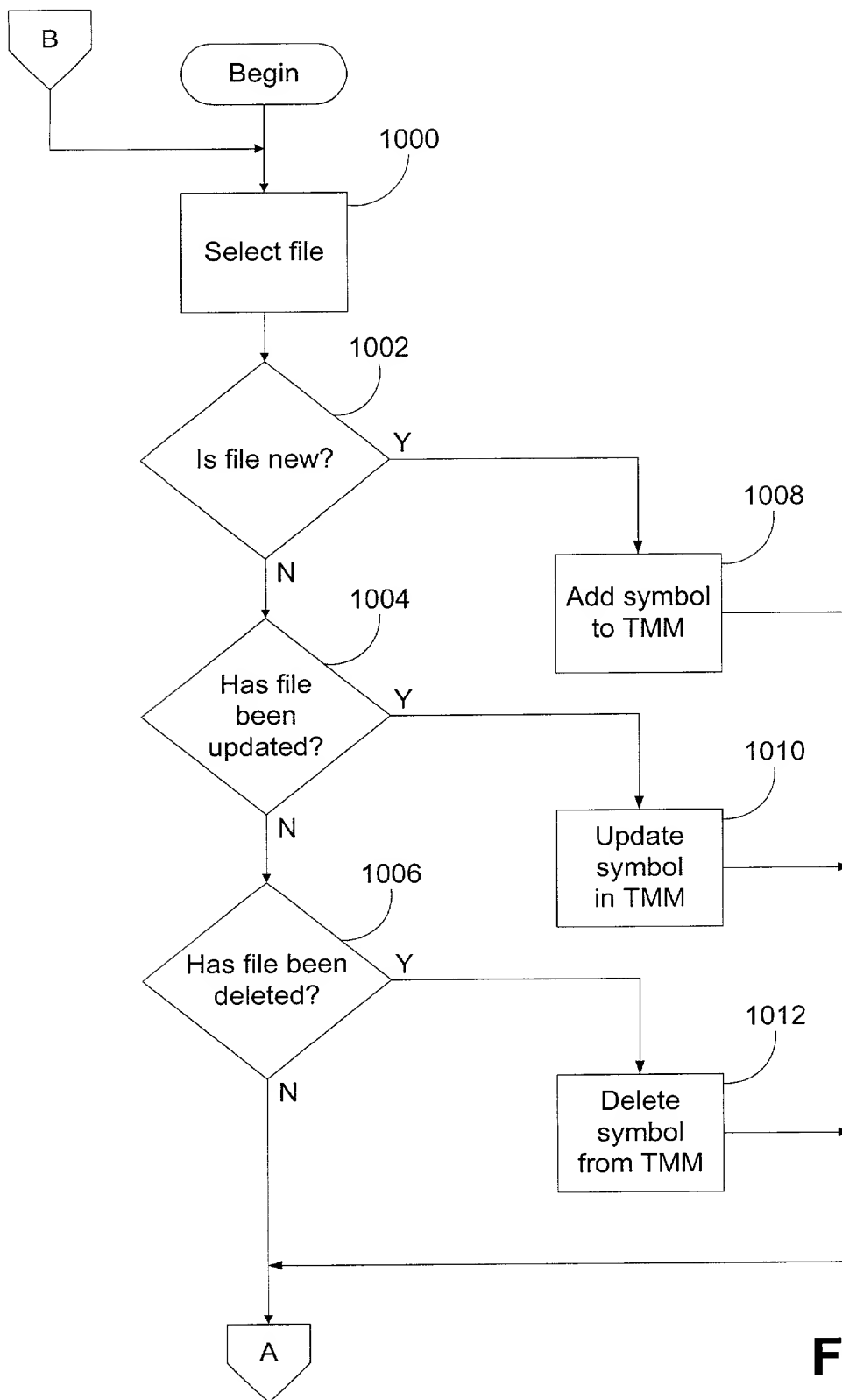


FIG. 10A

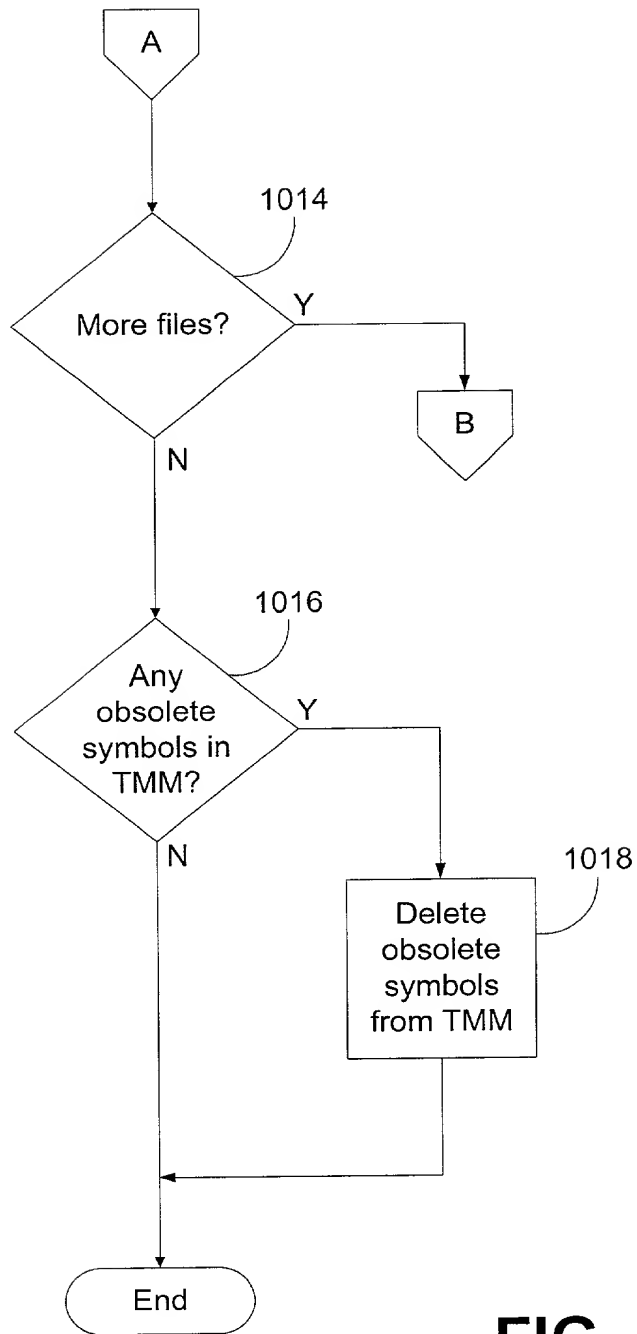


FIG. 10B

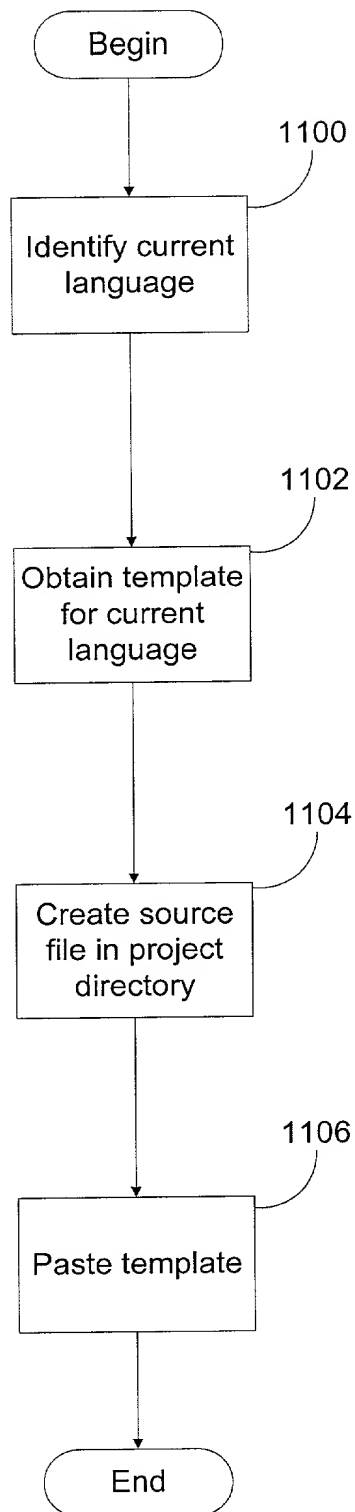


FIG. 11

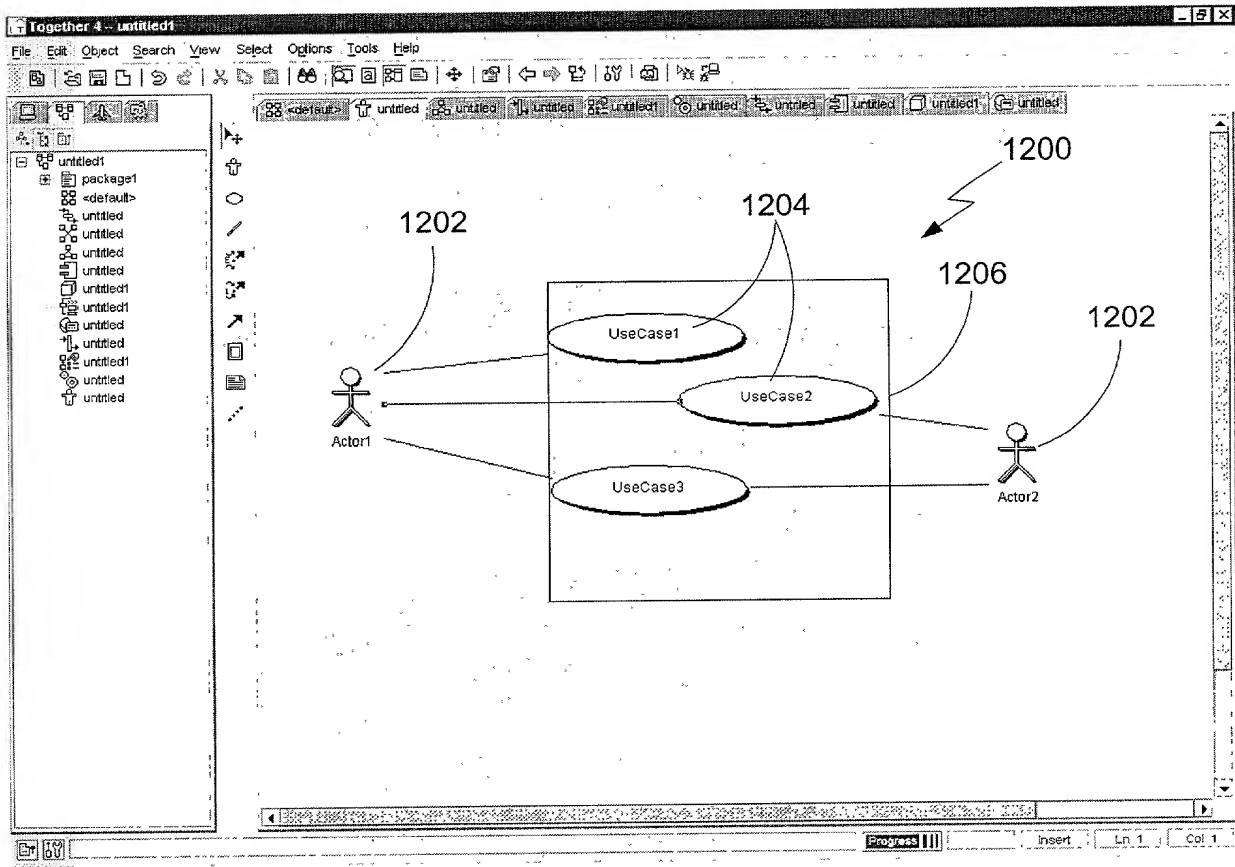


FIG. 12

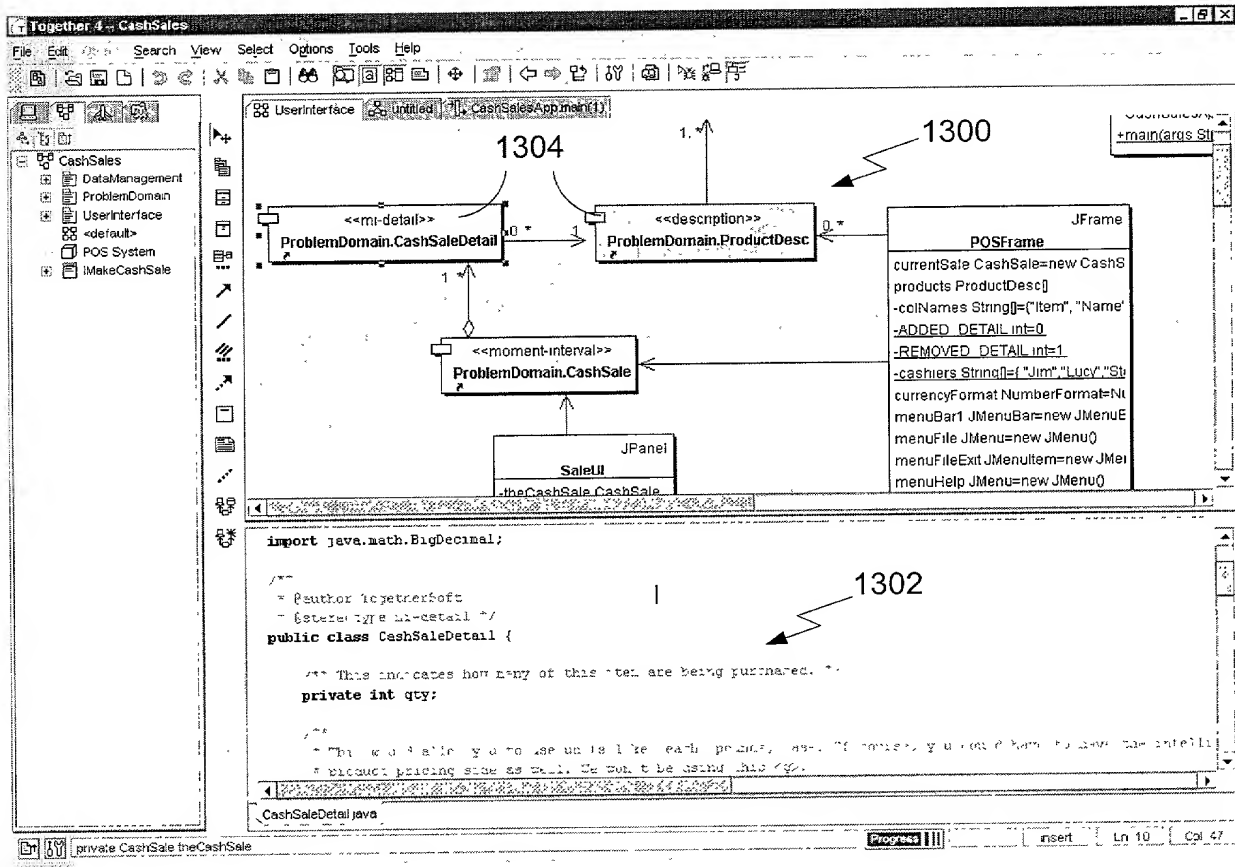


FIG. 13

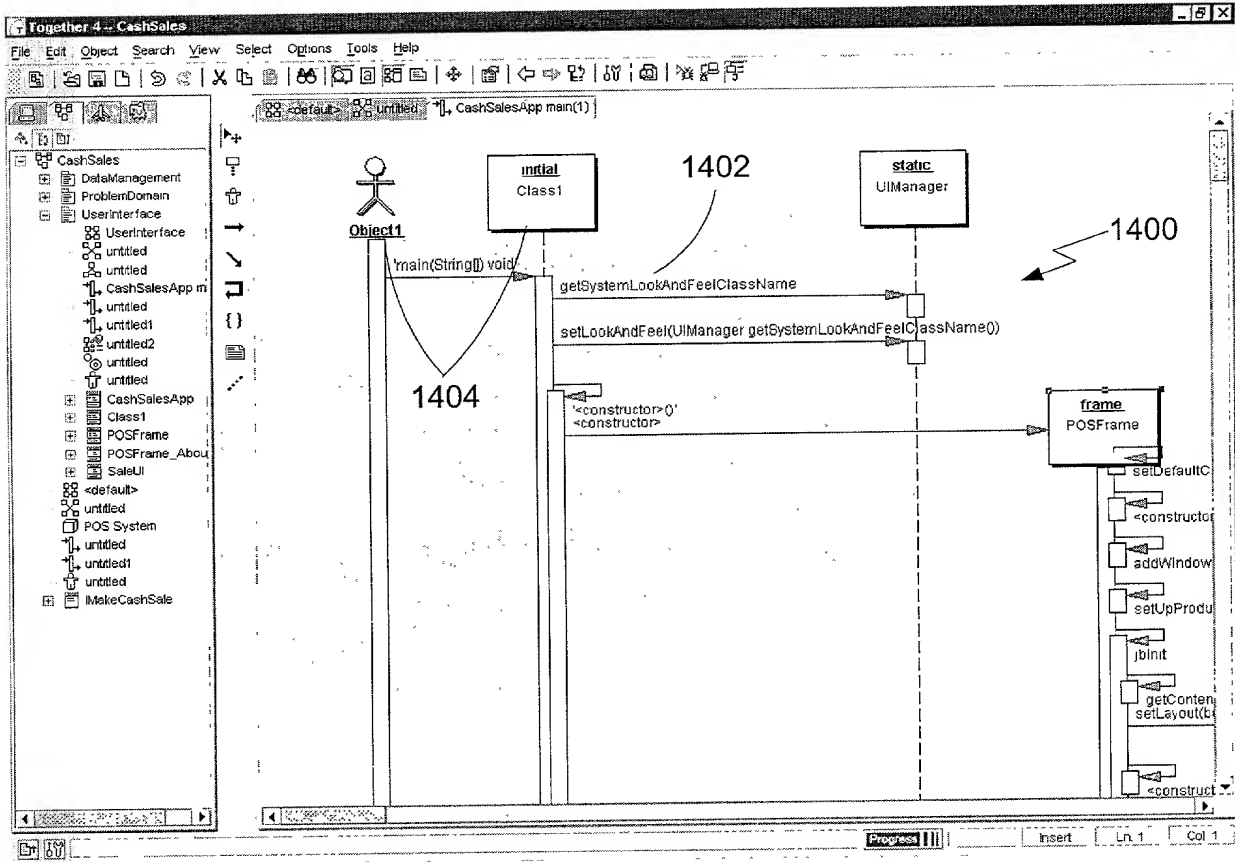


FIG. 14

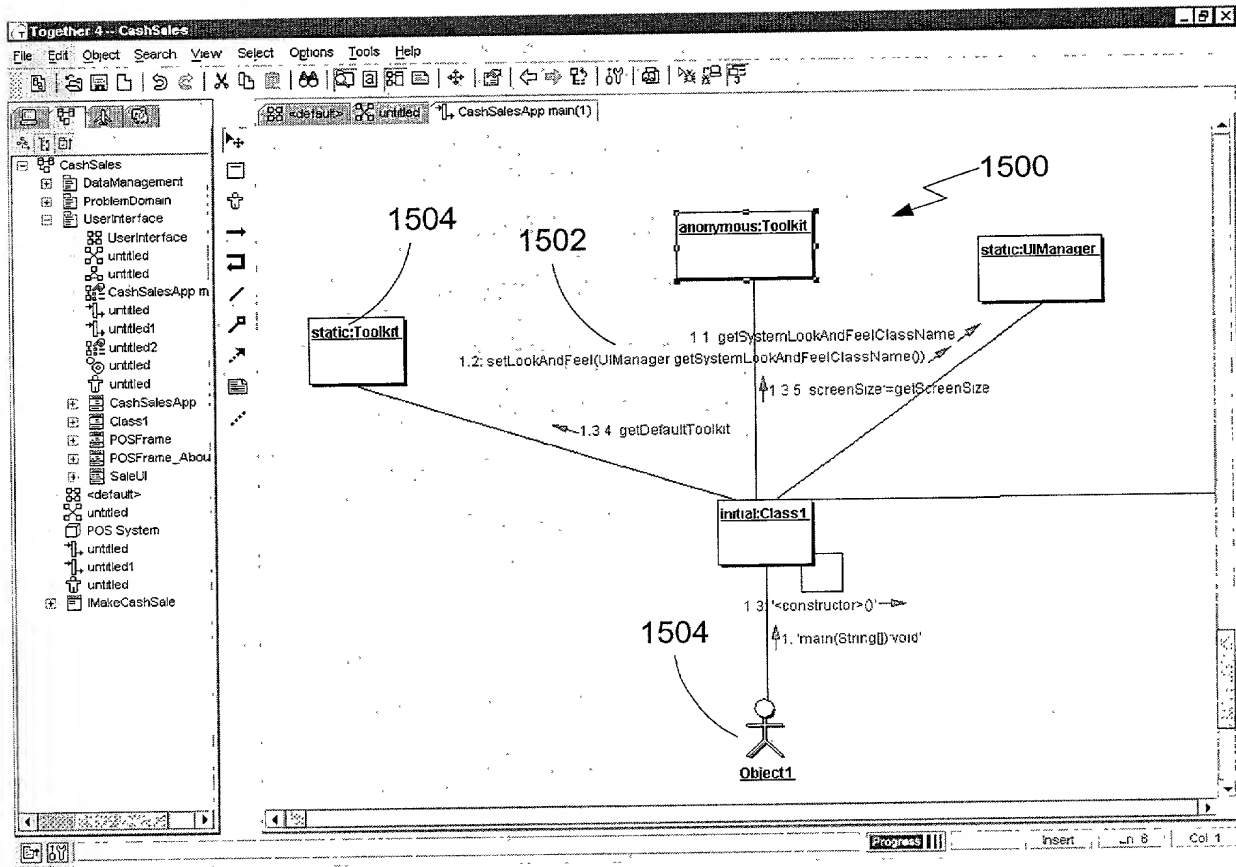


FIG. 15

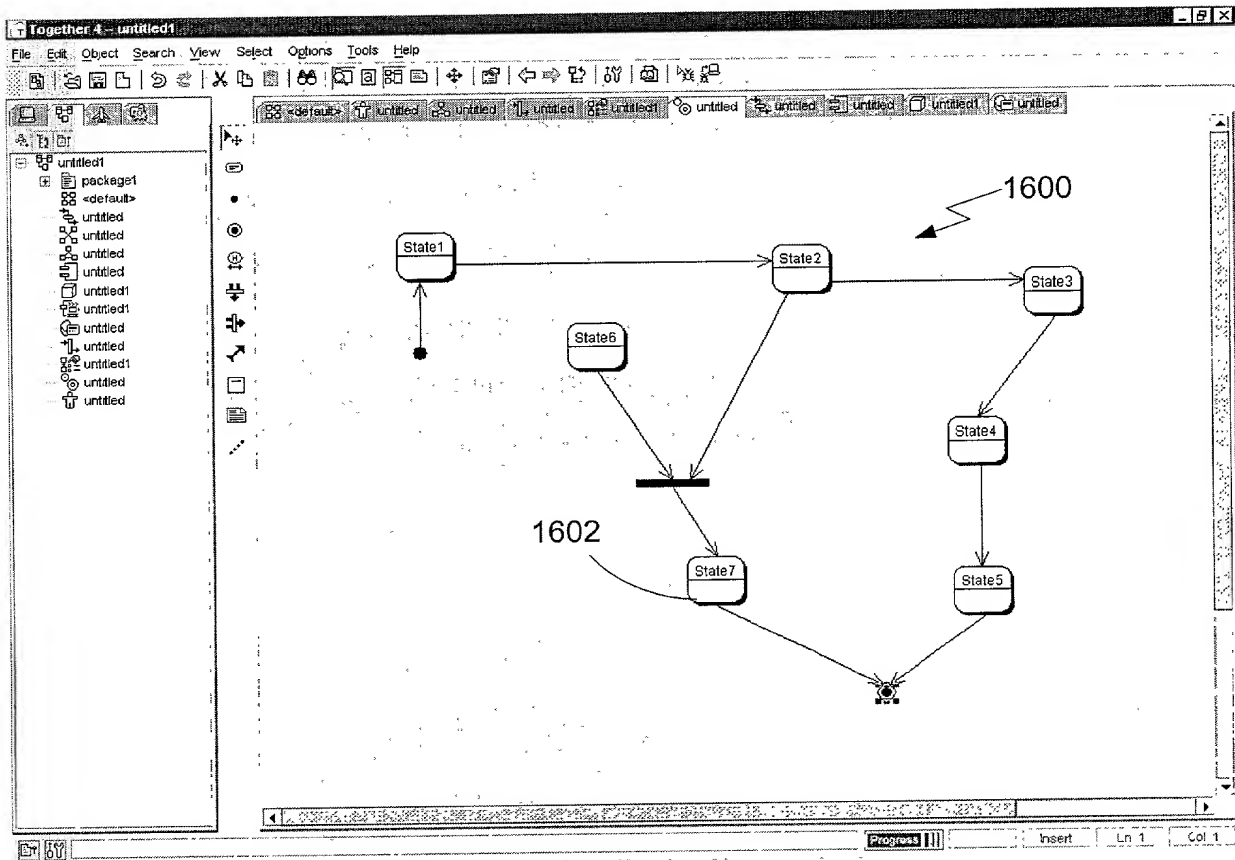


FIG. 16

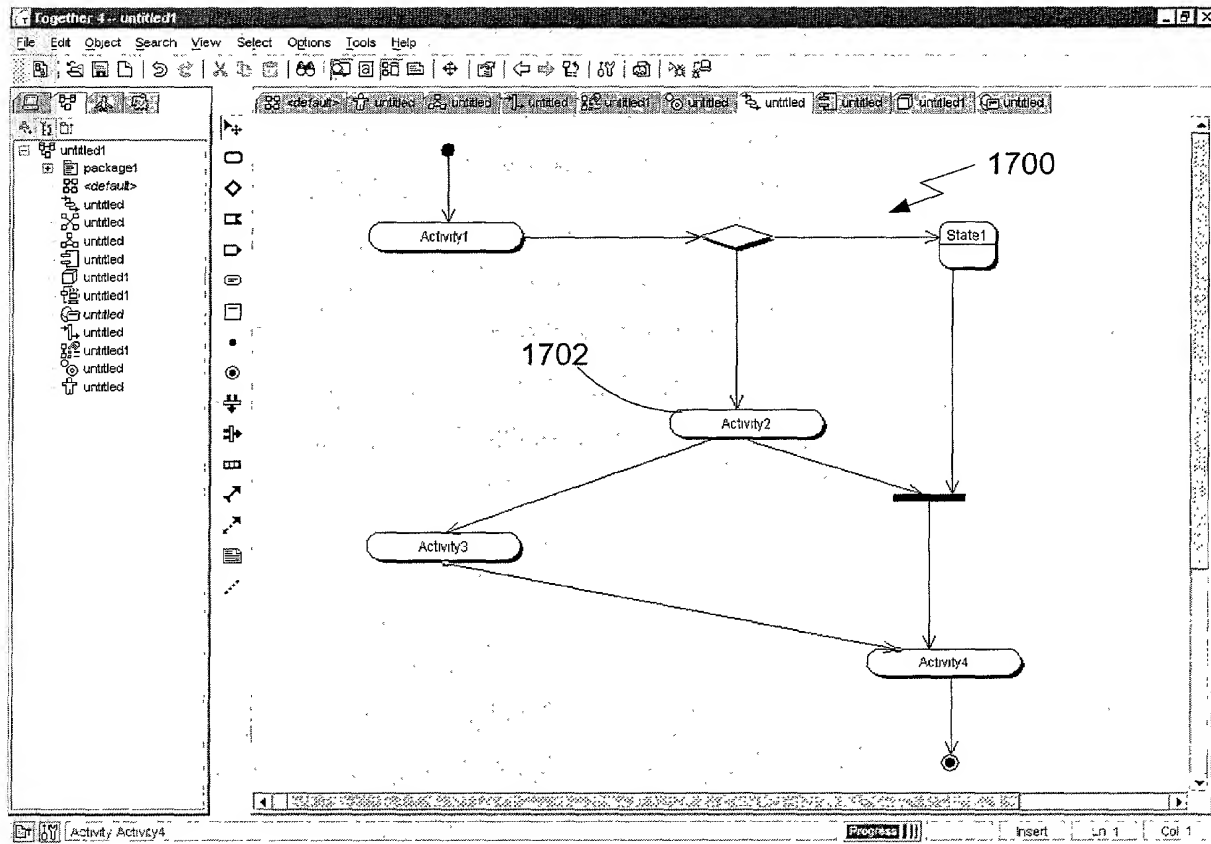


FIG. 17

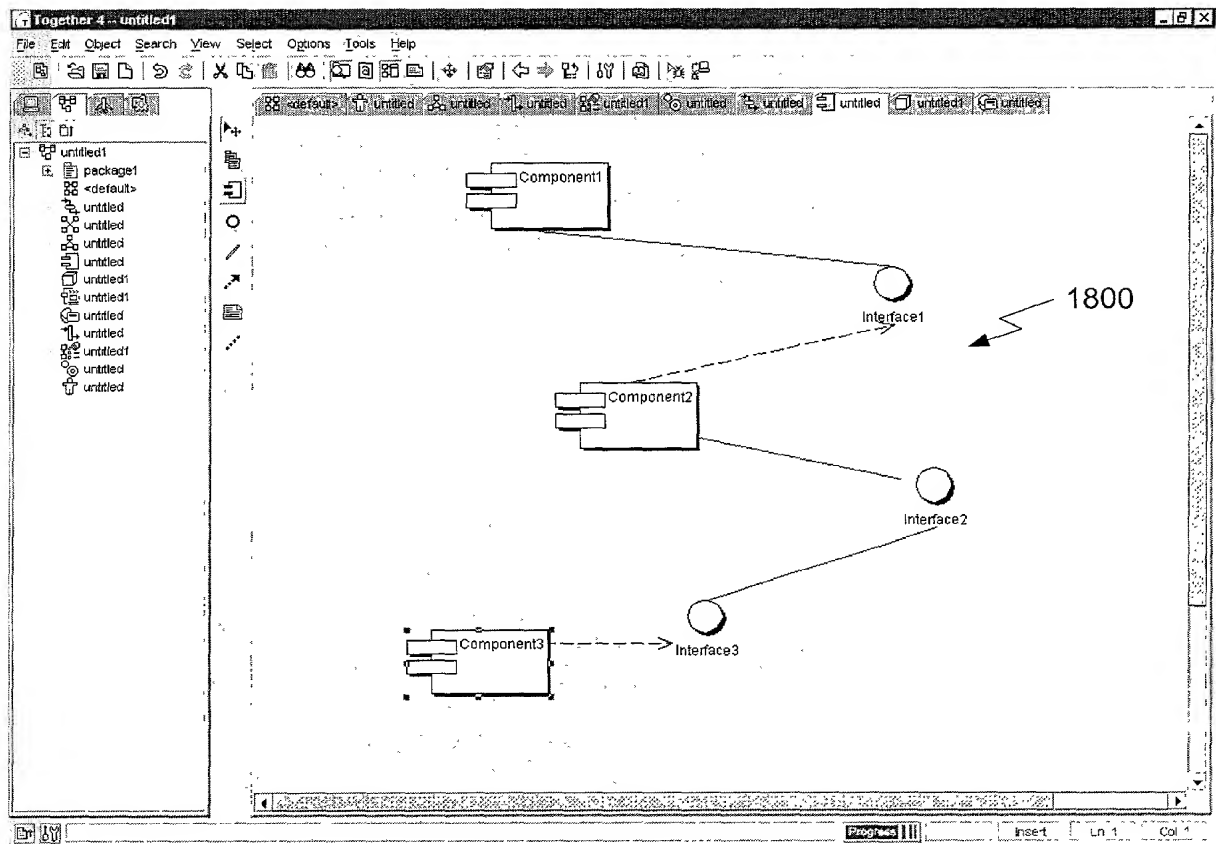


FIG. 18

FIG. 19

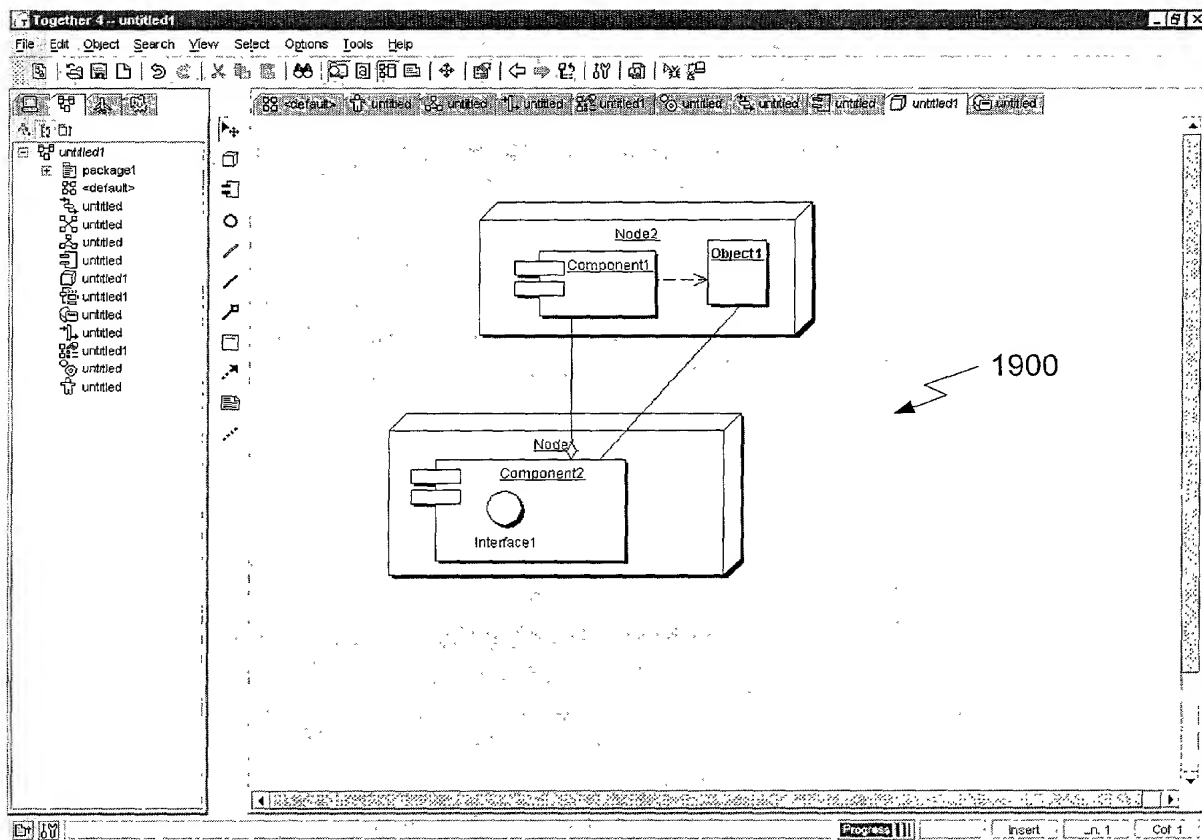


FIG. 19

FIG. 20

```
public class Sale
{
    /**
     * @link aggregation
     * @associates <{SaleDetail}>
     */
    private Vector InkSaleDetail;

    public void addItem( Product aProd)
    {
        public SaleDetail( String barCode)
        {
            Product item = Product.lookup( barCode );
        }
    }
}
```

2002

2008 2004 2006

2010 2012

FIG. 21

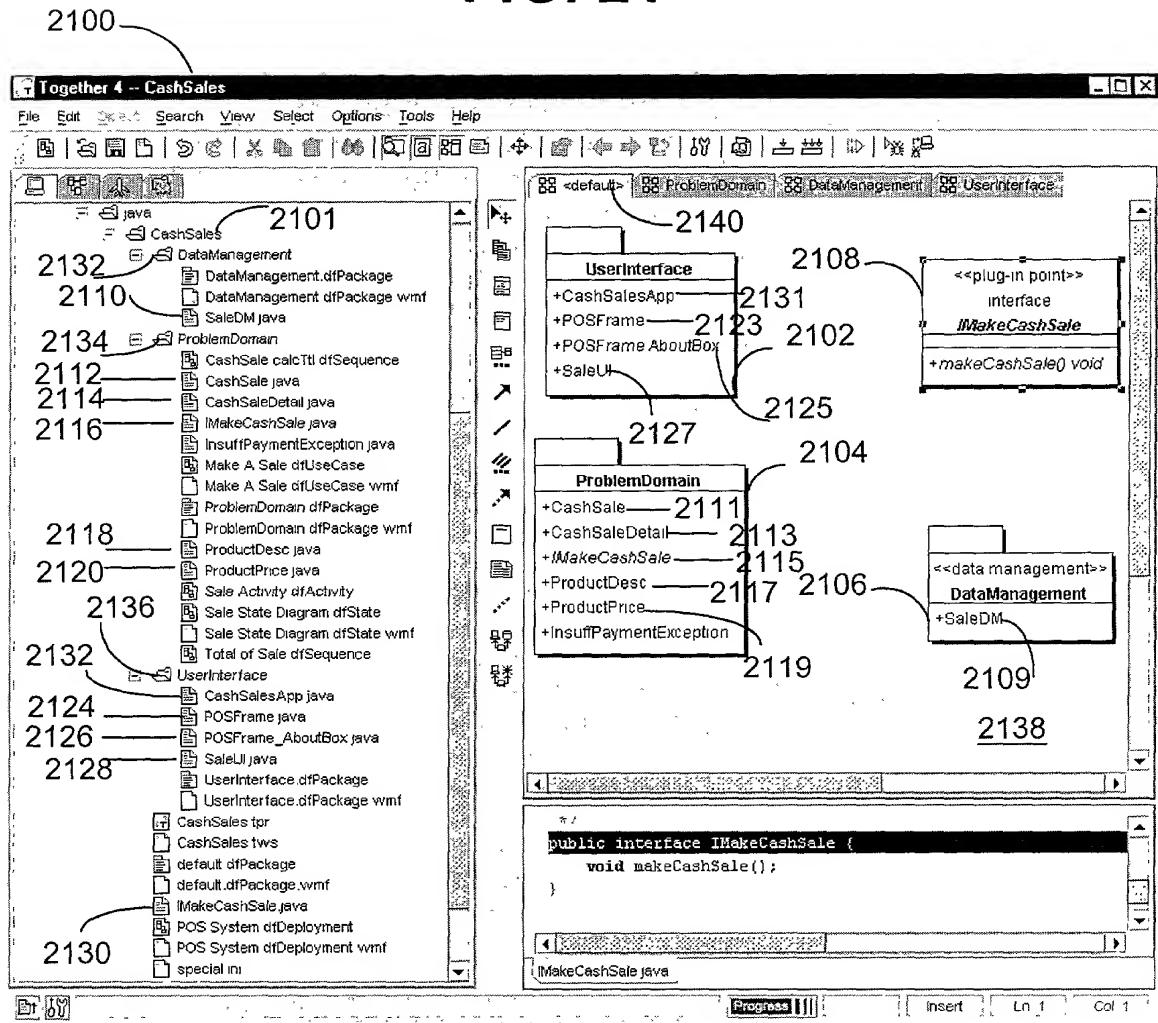


FIG. 22A

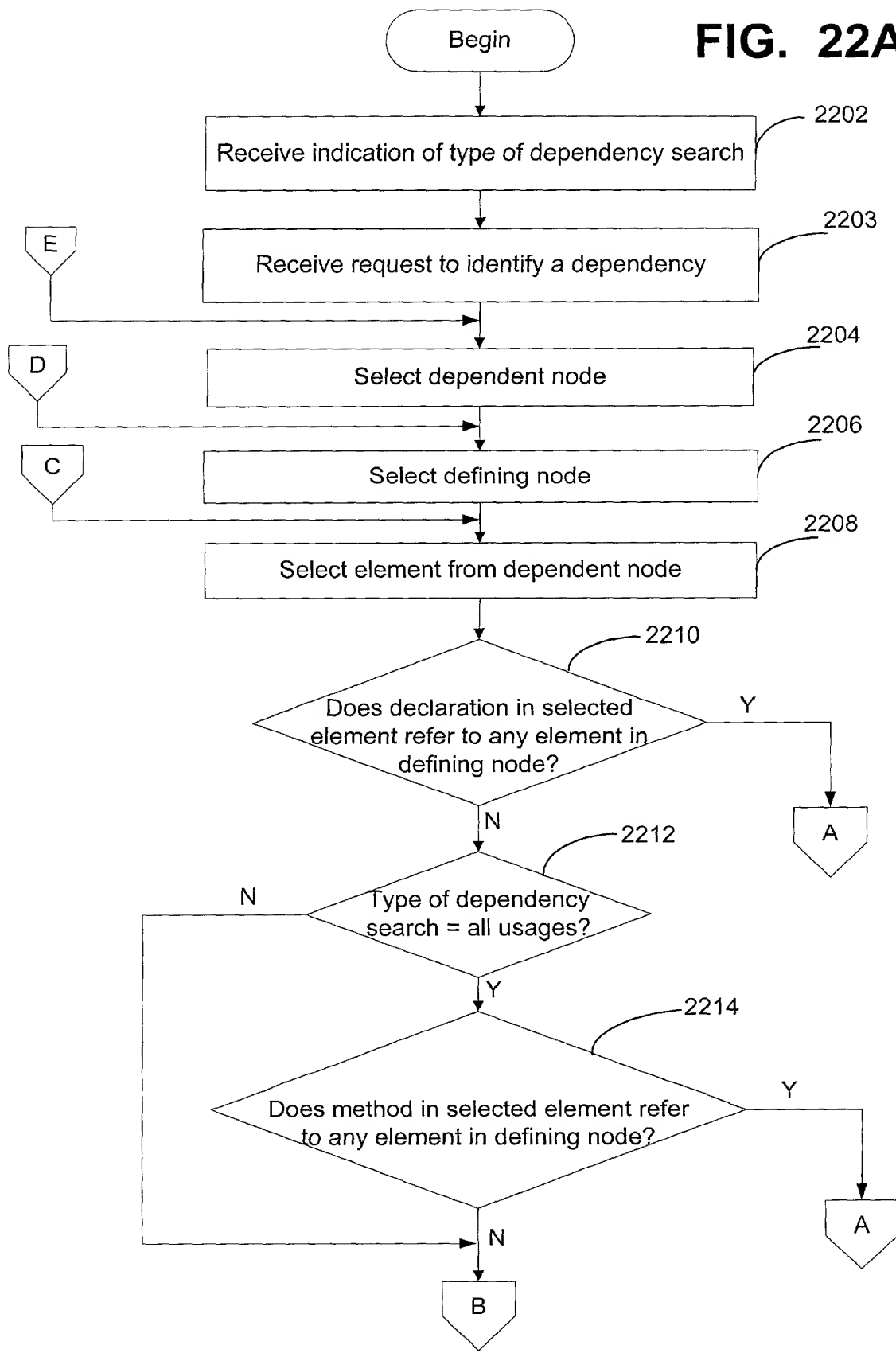


FIG. 22B

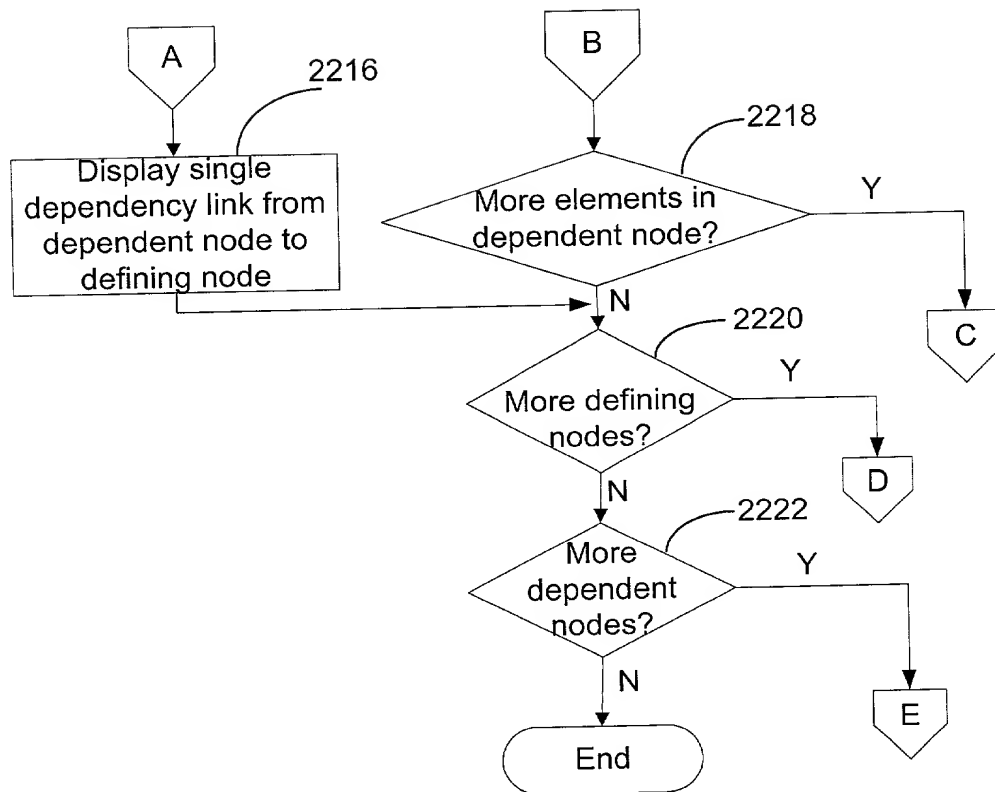


FIG. 23

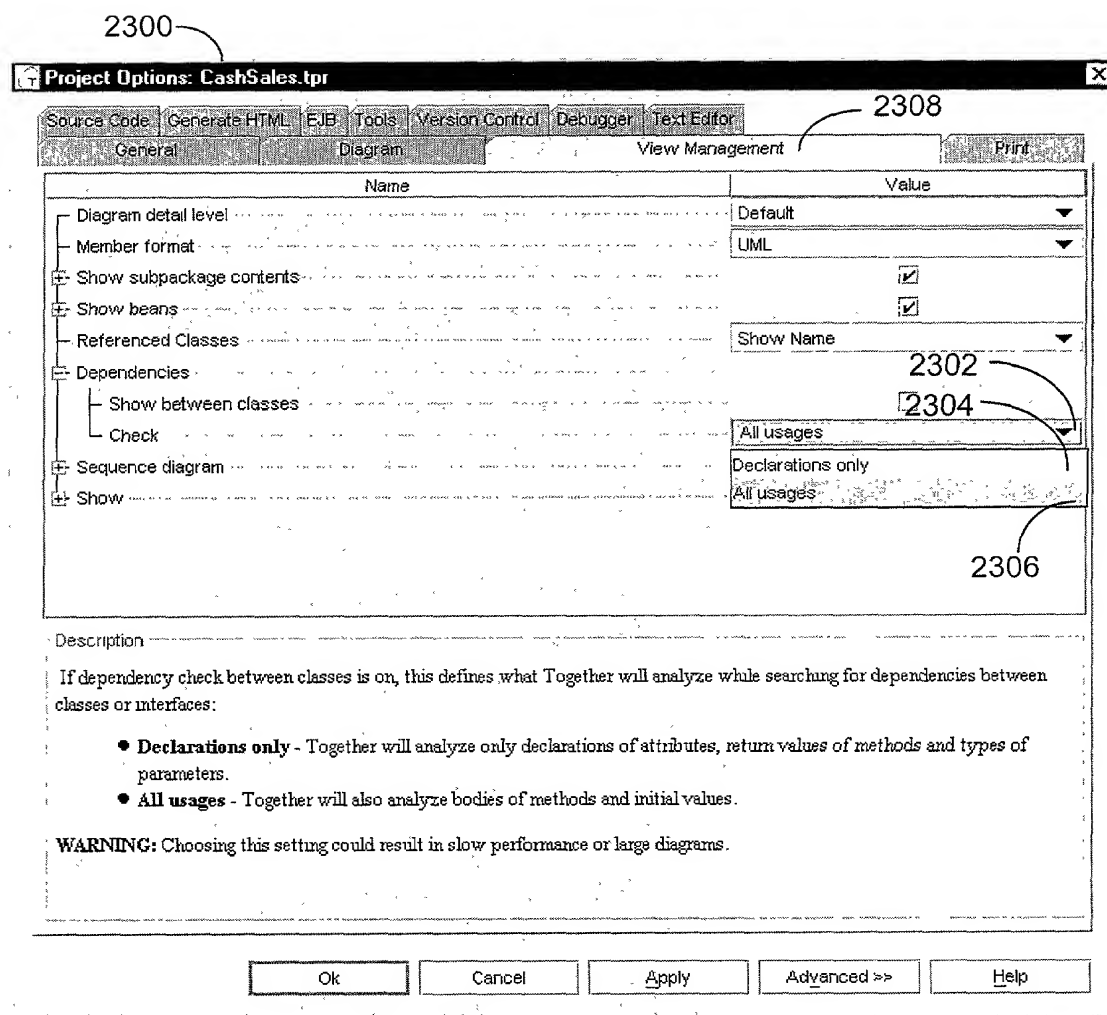


FIG. 24

2400

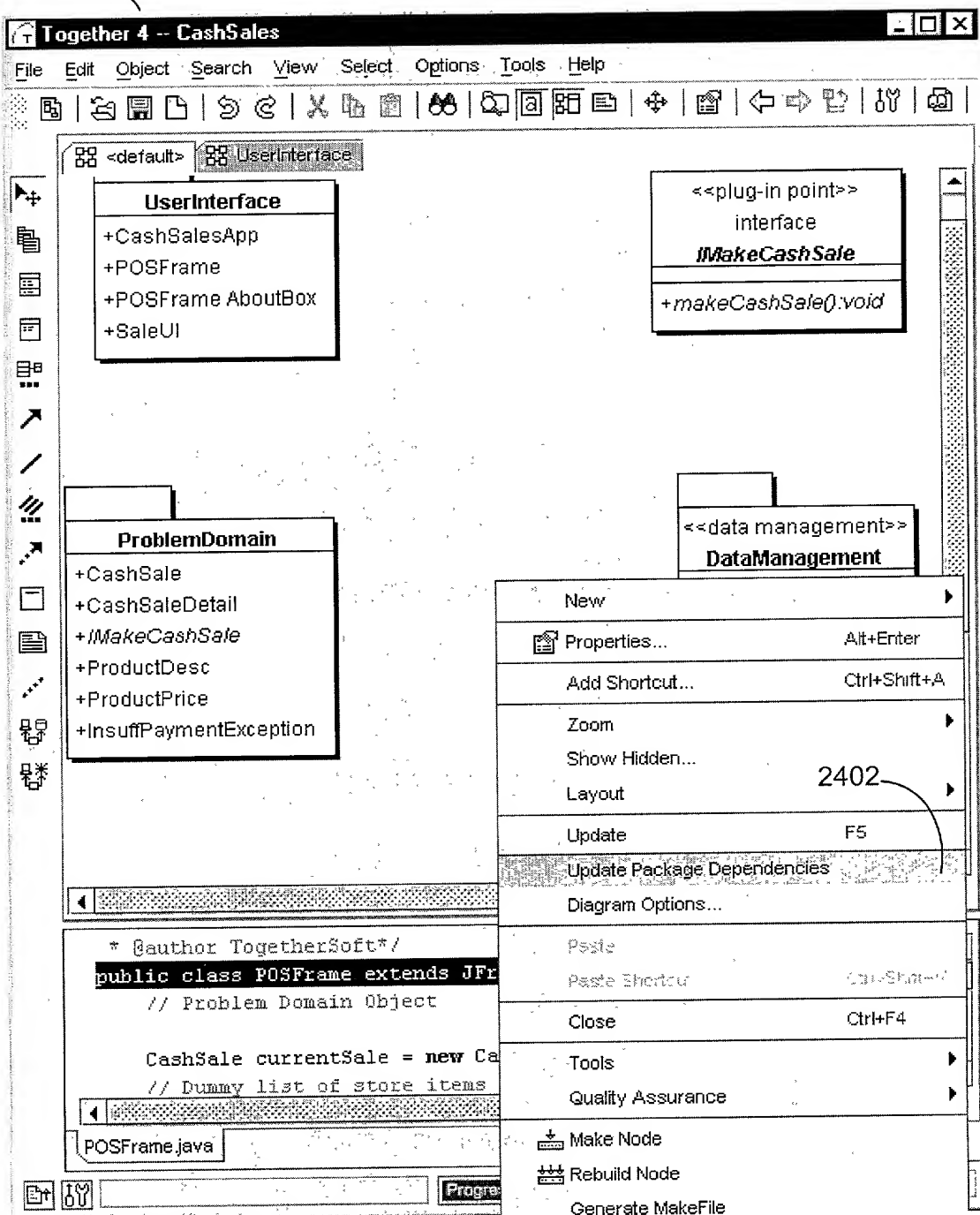


FIG. 25

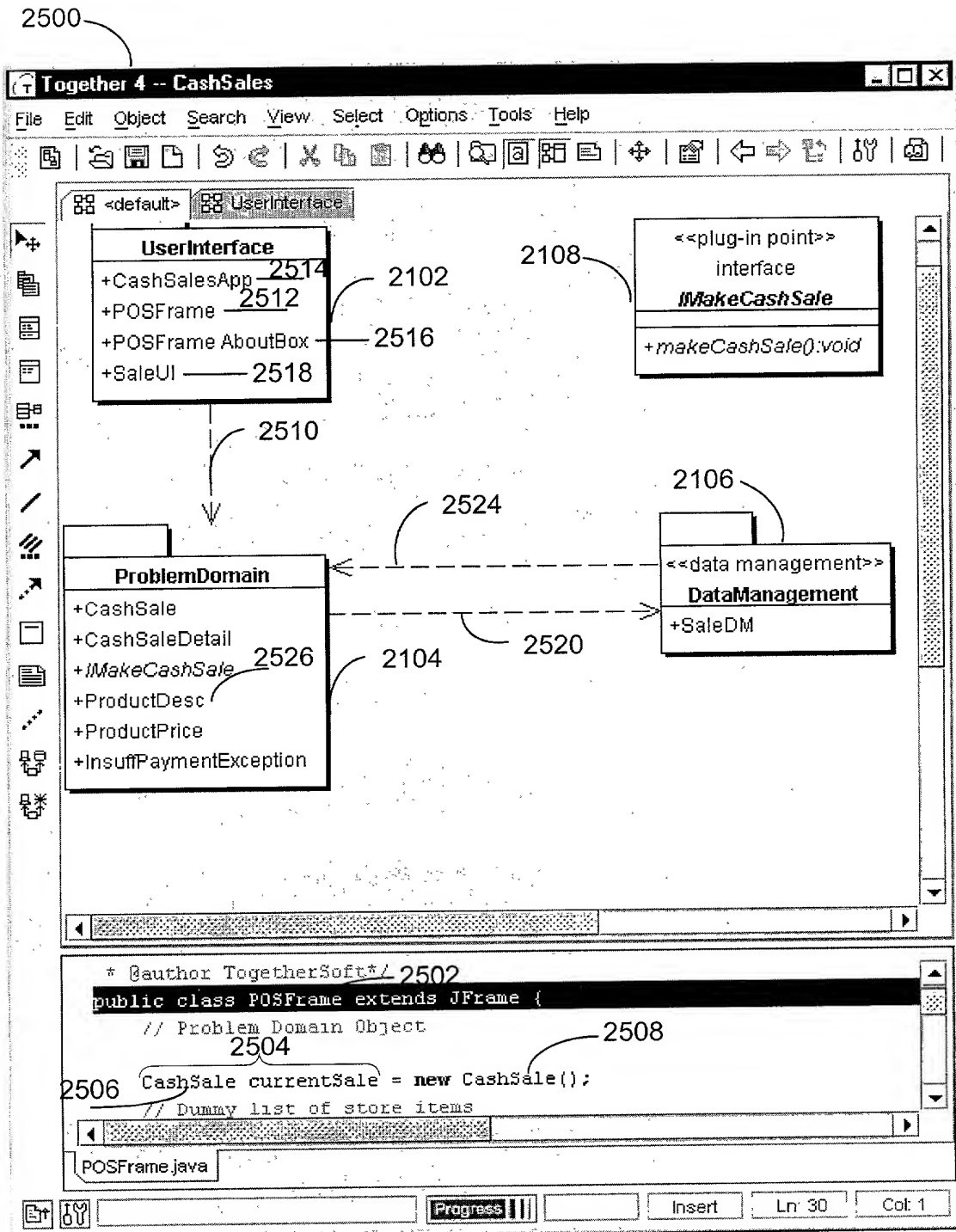


FIG. 26

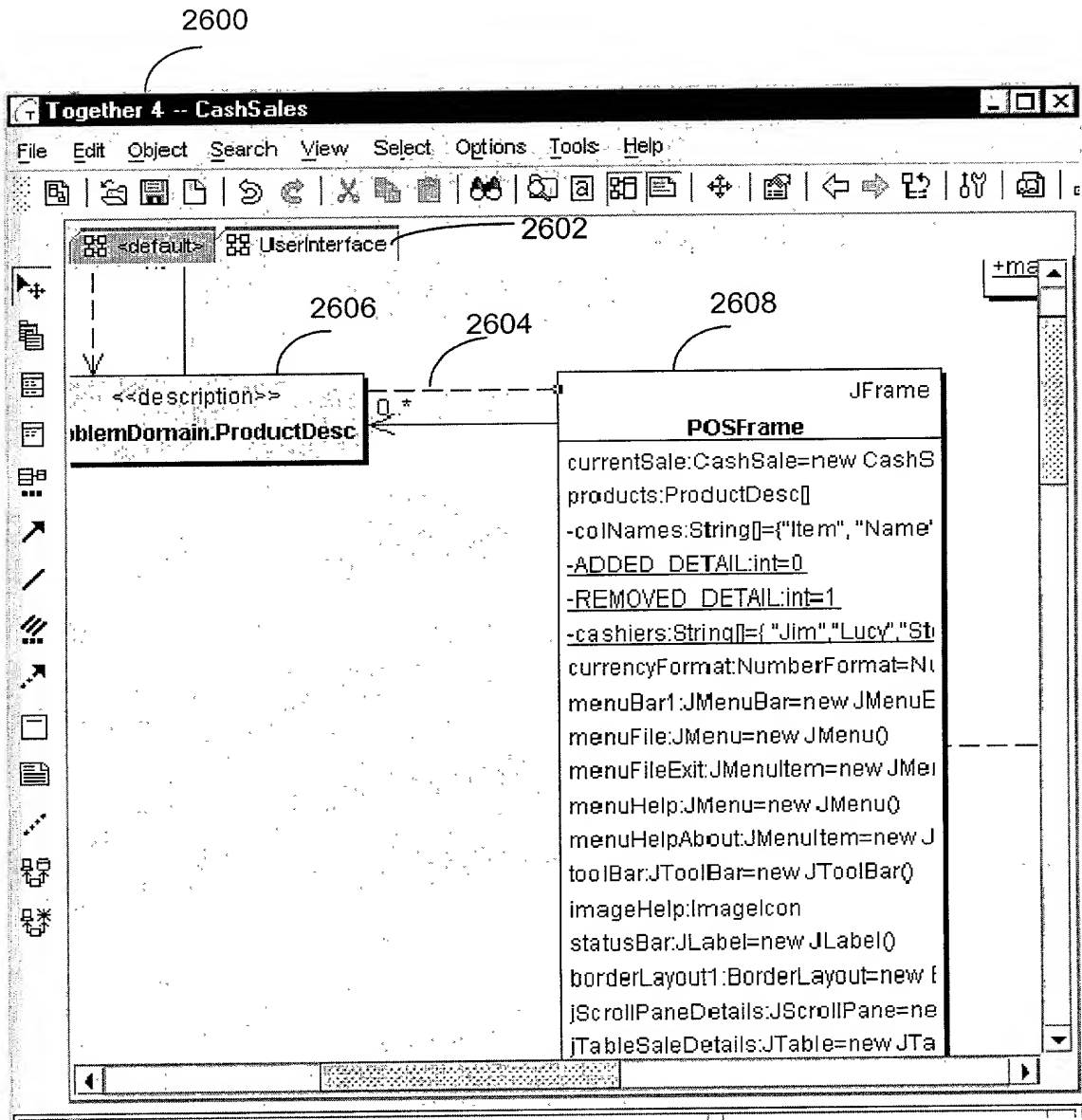


FIG. 27A

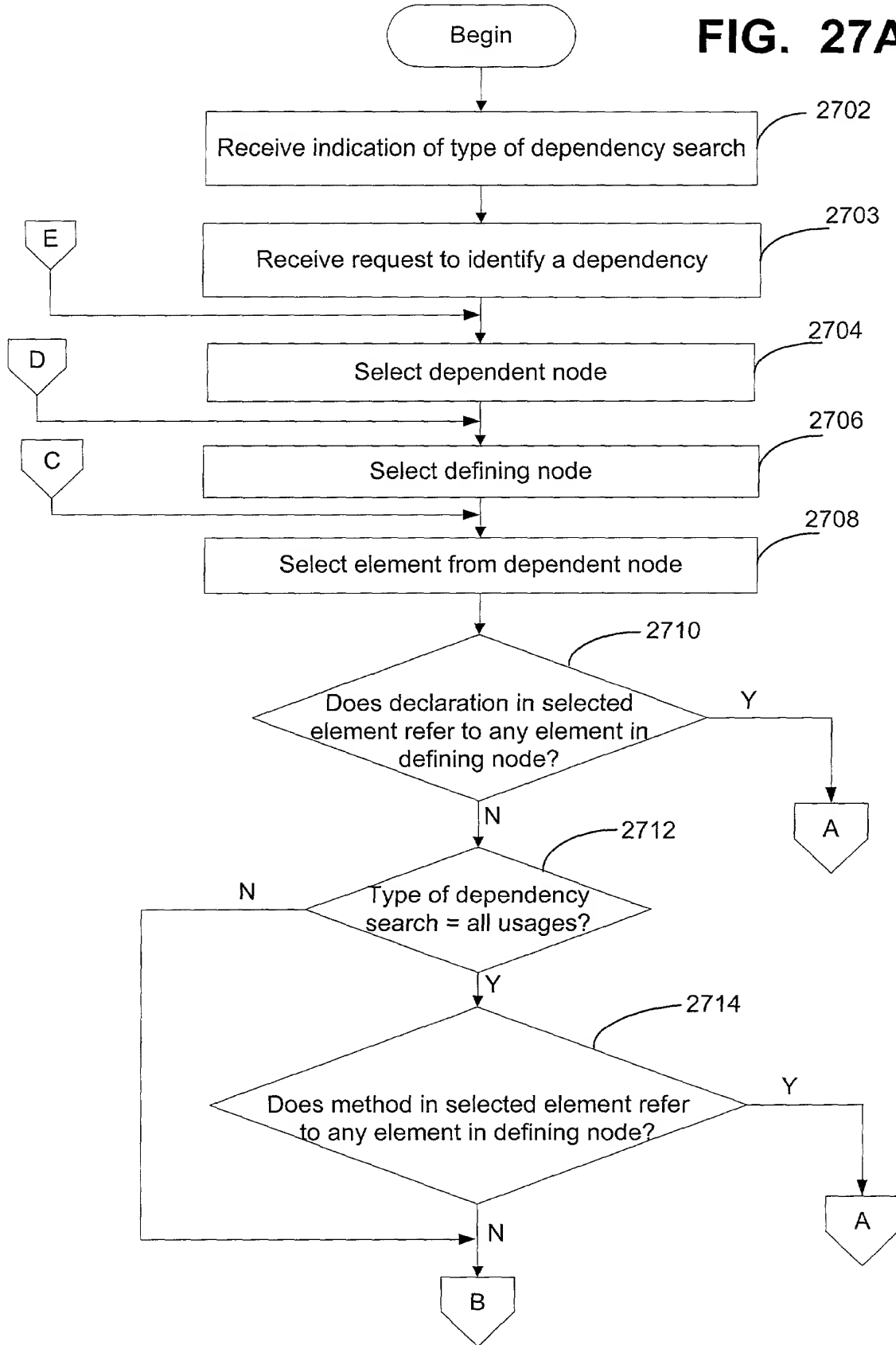


FIG. 27B

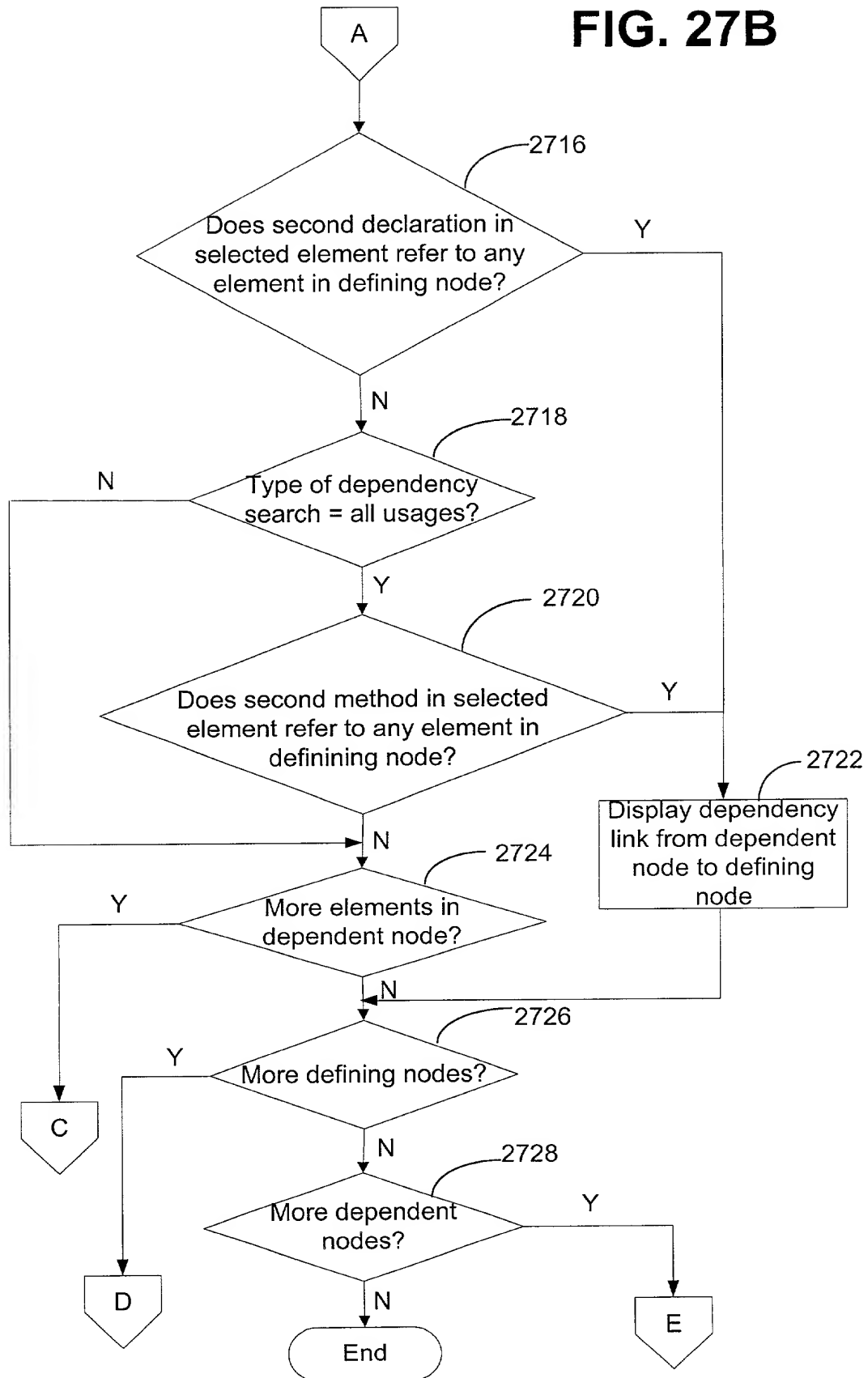


FIG. 28A

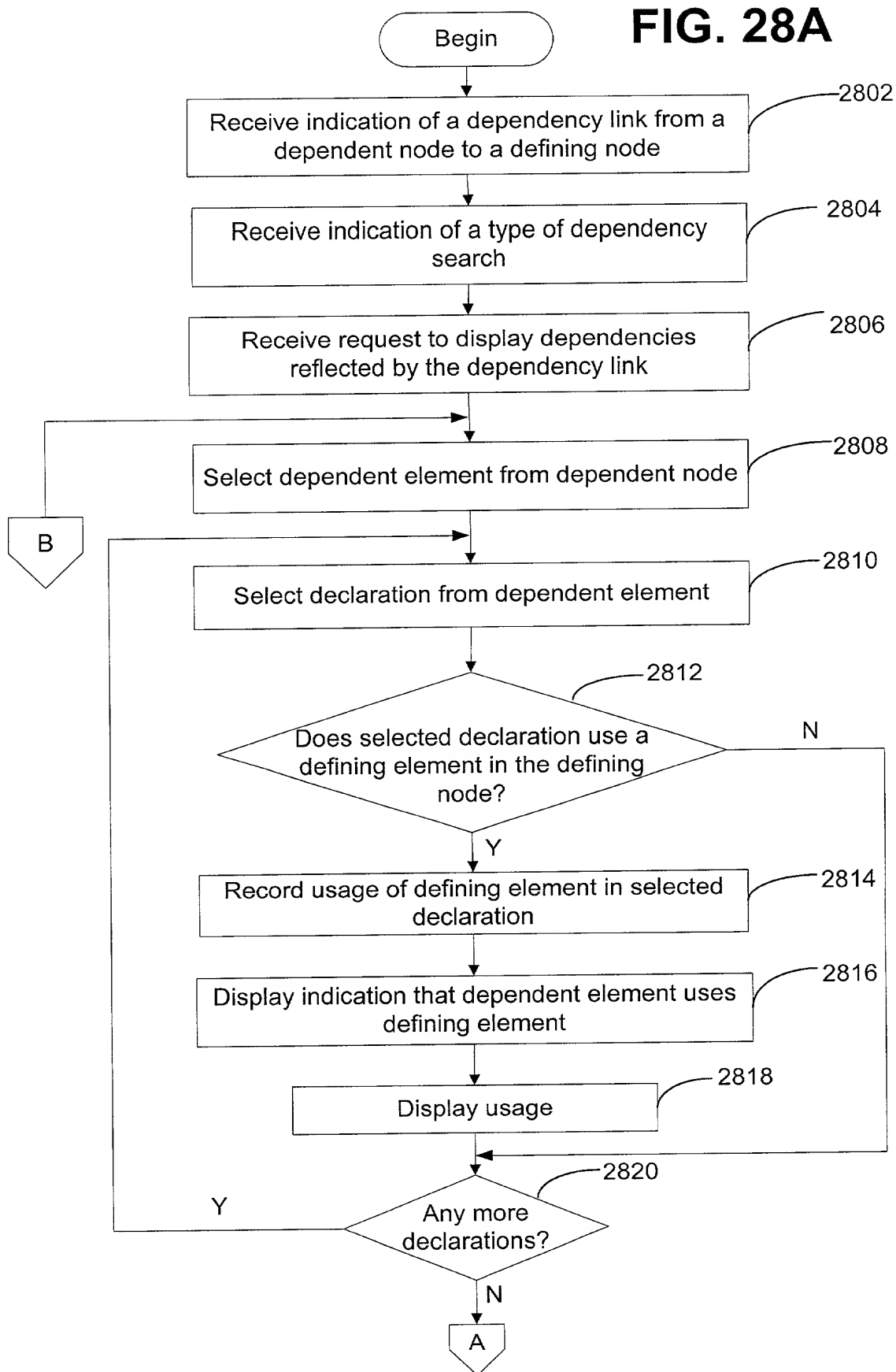


FIG. 28B

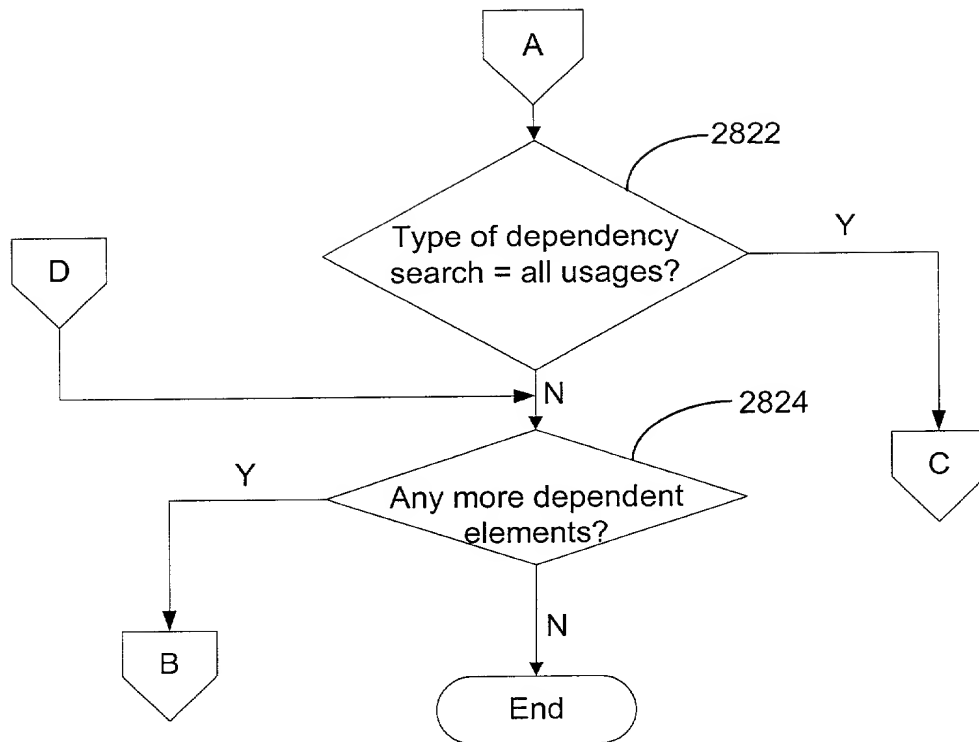


FIG. 29

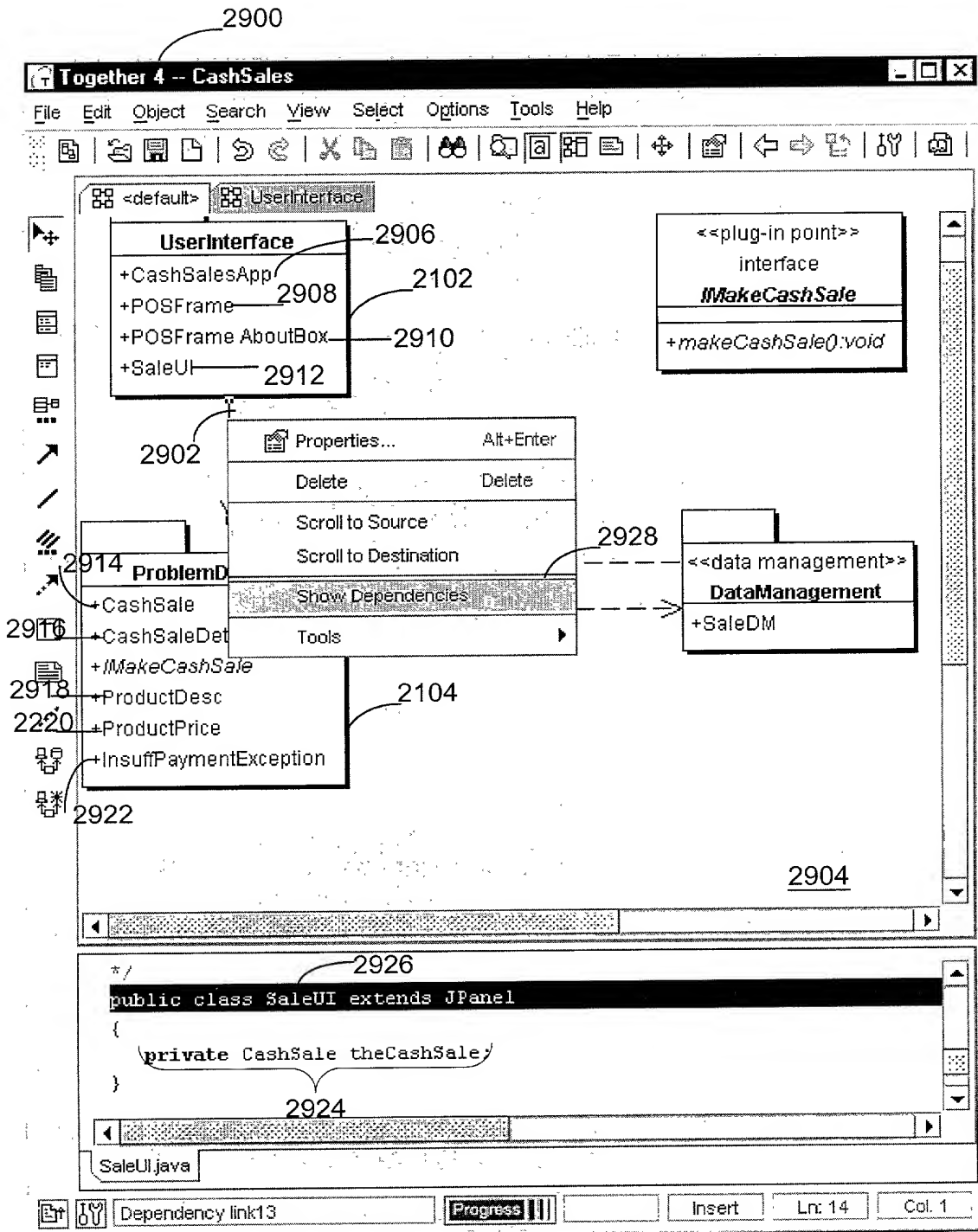


FIG. 30

```

3002
public class POSFrame extends JFrame {
    // Problem Domain Object

    CashSale currentSale = new CashSale();
    // Dummy list of store items

    ProductDesc[] products; 3004
    // Sale Detail Table Column Header
3006
    private final String[] colNames = {"Item", "Name", "Unit", "Qty", "Price"};
    private final static int ADDED_DETAIL = 0;
    private final static int REMOVED_DETAIL = 1;
    // Dummy list of cashiers

    private final static String[] cashiers =
    {
        "Jim", "Lucy", "Steve", "Sarah", "Jon", "Buddy", "Bettie", "Sue", "John", "Ted"};
    NumberFormat currencyFormat = NumberFormat.getCurrencyInstance();

    private void setUpProducts() {
        products = new ProductDesc[10];
        products[0] = new ProductDesc("1", "Pepsi 24-pack", "Pepsi 24", new BigDecimal(3.99));
        products[1] = new ProductDesc("2", "Lays Ridges", "Lays", new BigDecimal(1.99));
        products[2] = new ProductDesc("3", "Vienna Sausages", "Vienna Sausages",
        new BigDecimal(2.99));
        products[3] = new ProductDesc("4", "White Popcorn", "White Popcorn",
        new BigDecimal(1.30));
        products[4] = new ProductDesc("5", "Soy Burgers", "Soy Burger", new BigDecimal(5.99));
        products[5] = new ProductDesc("6", "Cat Chow", "Cat Chow", new BigDecimal(9.99));
        products[6] = new ProductDesc("7", "Puppy Chow", "Puppy Chow", new BigDecimal(12.99));
        products[7] = new ProductDesc("8", "Finch Food", "Finch Food", new BigDecimal(1.59));
        products[8] = new ProductDesc("9", "Rice Krispies", "Rice Krispies", new BigDecimal(3.30));
        products[9] = new ProductDesc("10", "Fruit Loops", "Fruit Loops", new BigDecimal(3.49));
    }
}

```

FIG. 31

```

3102 public class ProductDesc {

    /** Use it if you need to identify Products as specific types. */
    private int type;

    /** Product name. For example: Goetze's Caramel Cremes */
    private String name;

    /** This is the unique identifying number. Something like a UPC for retail
    products. */
    private String itemNumber;

    /** Default price. */
    private BigDecimal defaultPrice;

    /** Some prose describing the product in all its glory. */
    private String description;

    /**
     * List of prices. If this list has elements, then they are checked. Otherwise,
     * the default price is used. <p>
     * @supplierCardinality 1..*
     * @associates <b>ProductPrice</b>
     */
    private Vector priceObjects;

    /* =====
     * Constructors
     * ===== */

    3104 /** Constructor requires all parameters. Type is defaulted to 0 since we
        aren't using it. */
        public ProductDesc(String anItemNum, String aDesc, String aName,
            BigDecimal aPrice) {
            type = 0; // not currently used
            itemNumber = anItemNum;
            description = aDesc;
            name = aName;
            defaultPrice = aPrice;
            priceObjects = new Vector();
        } // END ProductDesc(...)

```

FIG. 32

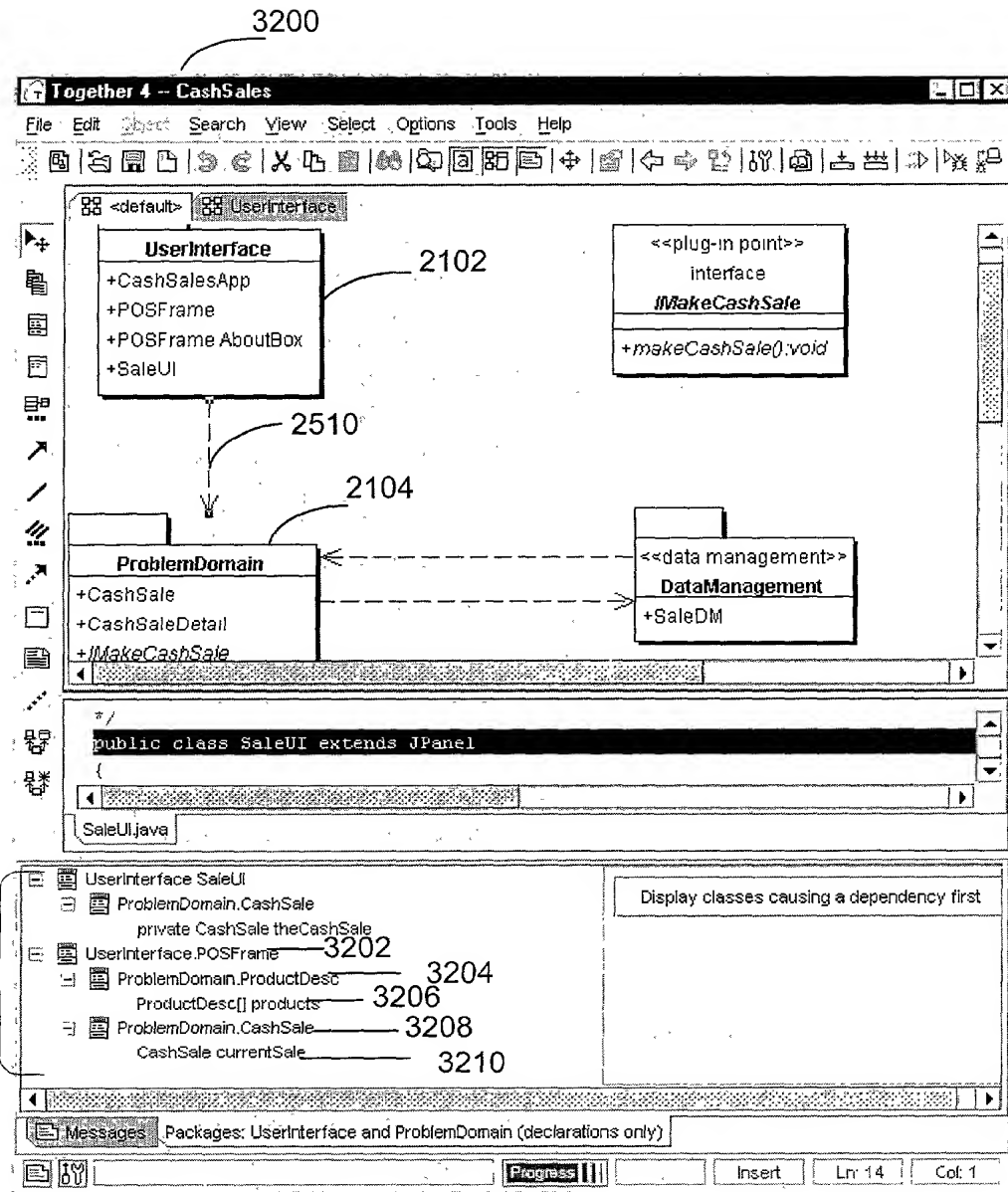


FIG. 33

3300

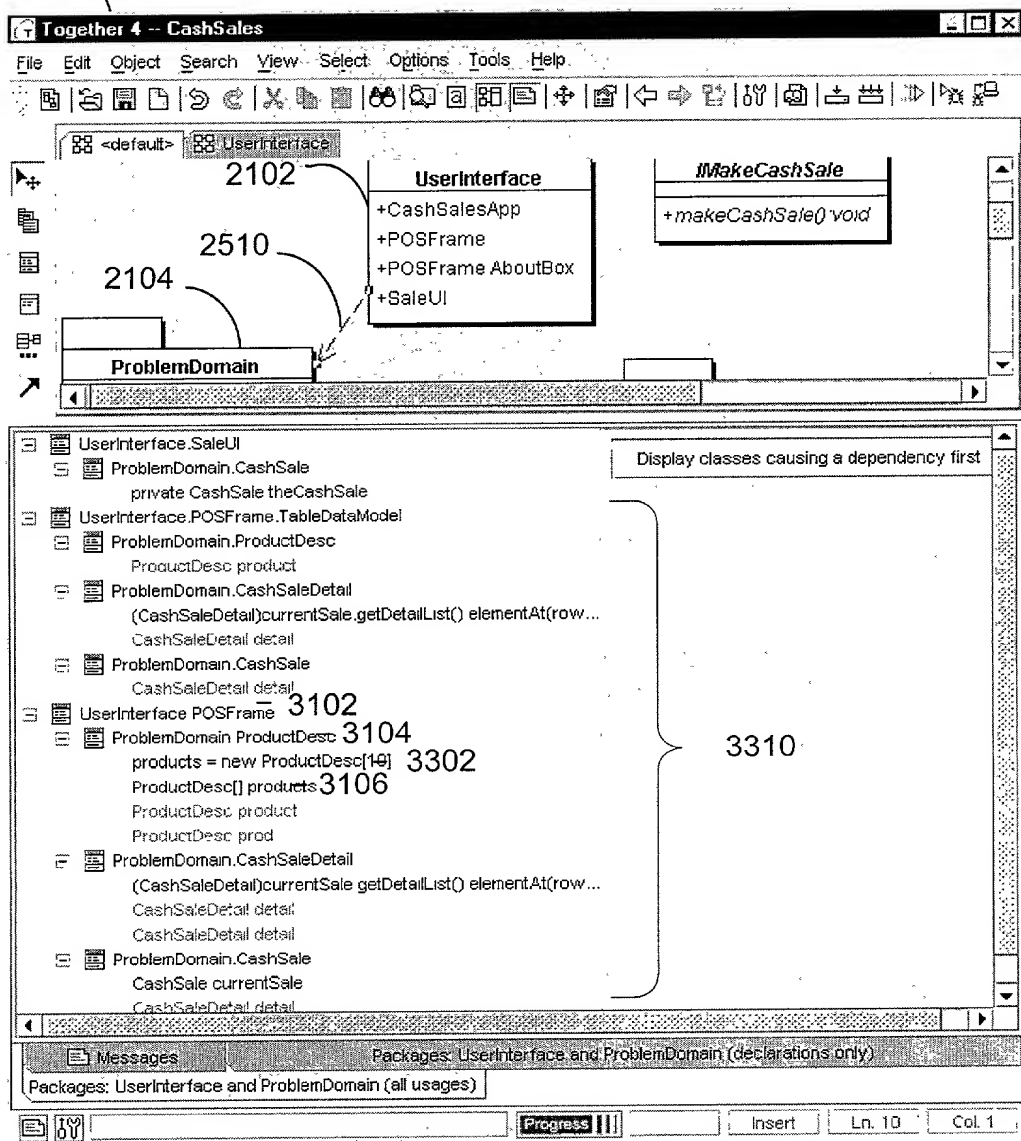


FIG. 34

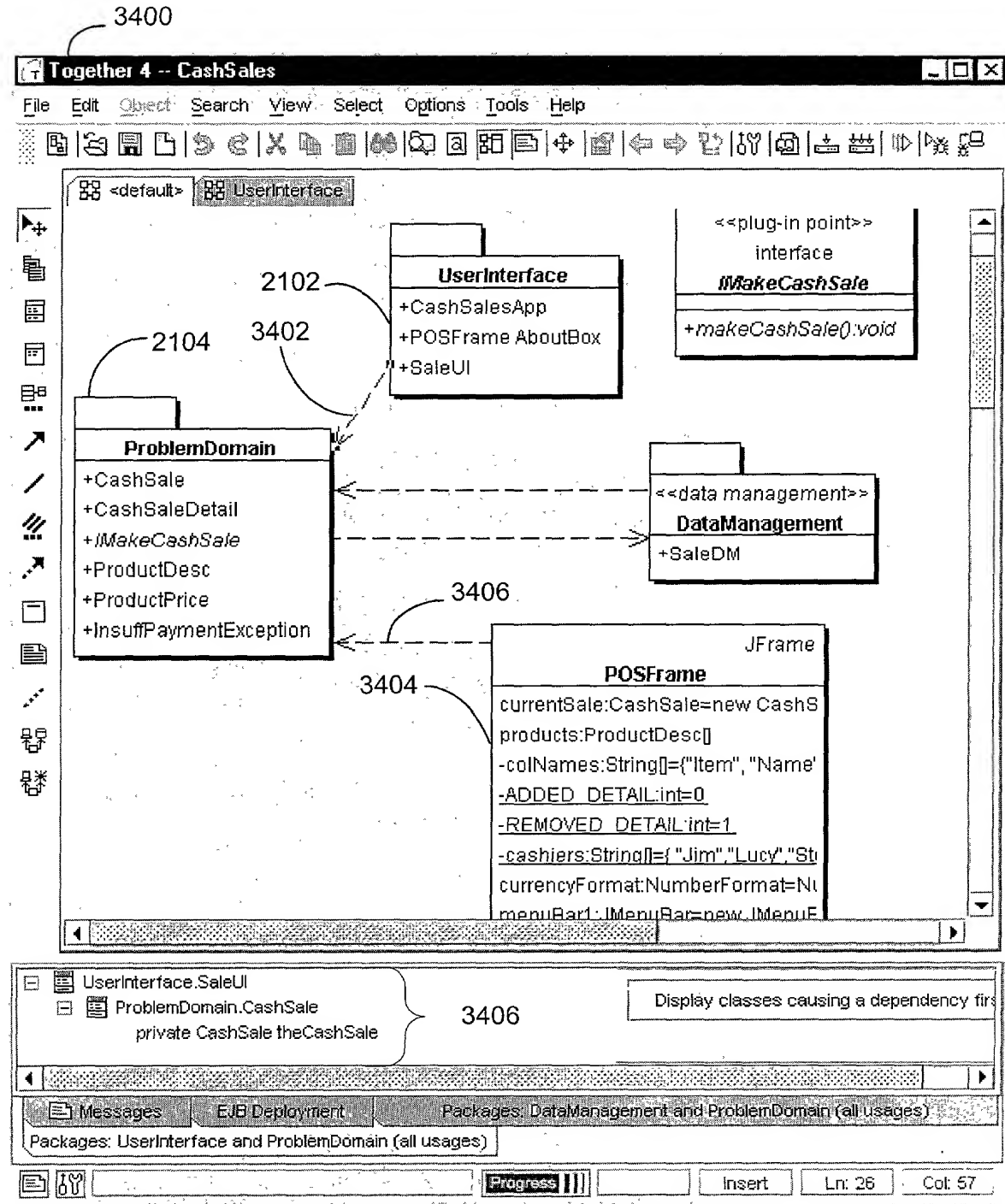


FIG. 35

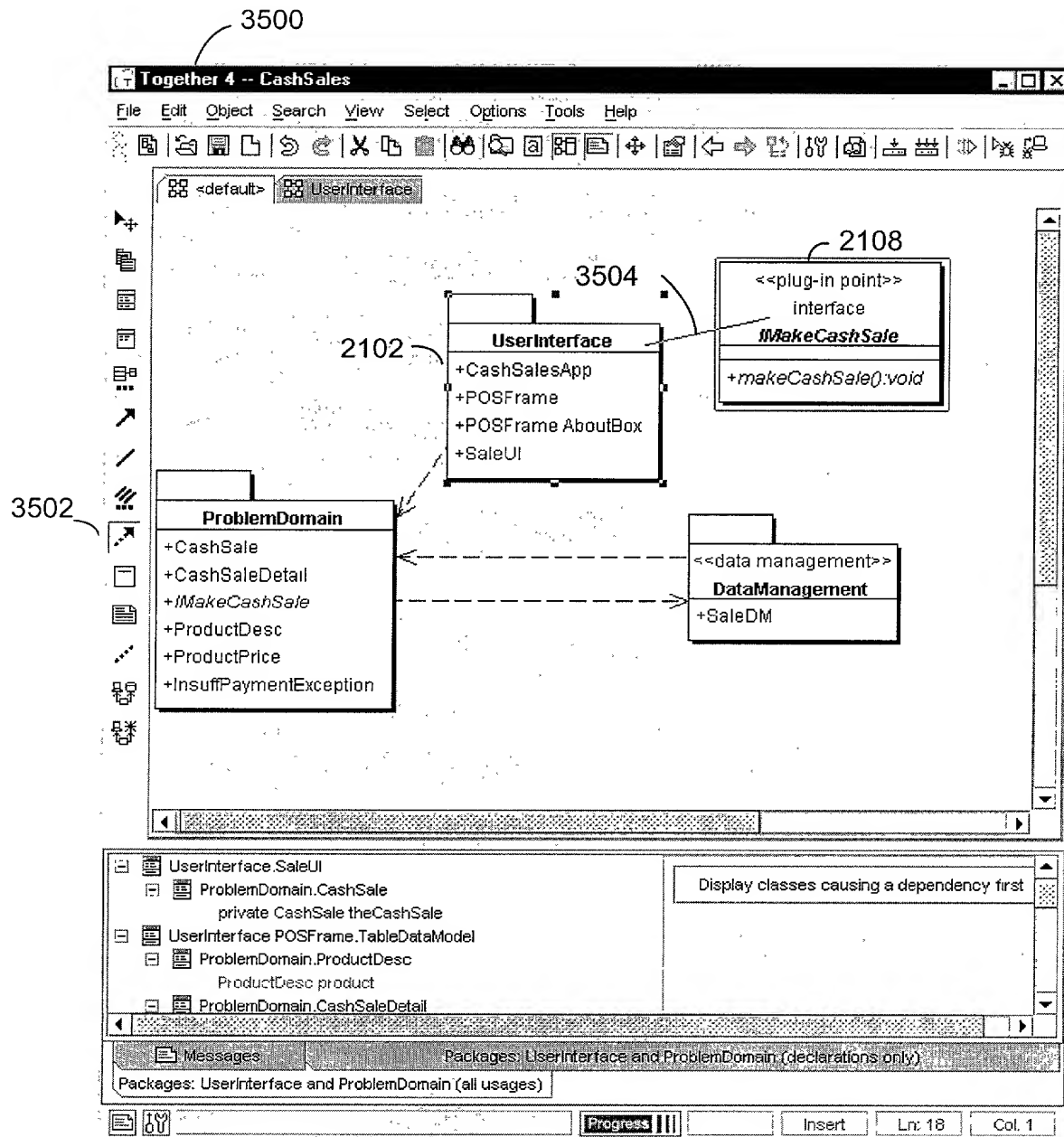


FIG. 36

